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## THE KNOWLEDGE OF COMMUNITY HEALTH AGENTS APPLIED TO ANTI-SMOKING PRACTICES IN THE MUNICIPALITY OF VOTUPORANGA: A BRAZILIAN OBSERVATIONAL-EPIDEMIOLOGICAL STUDY

Maria Laura de Biasi Alves<sup>1,\*</sup>, Adriano Sucena Pita<sup>1</sup>, Ana Luiza Alves Consoleto<sup>1</sup>, Beatriz Massici de Assis<sup>1</sup>, Cíndel dos Santos<sup>1</sup>, Fernanda Mara Silva Melo<sup>1</sup>, Giovana de Pádua Oliveira<sup>1</sup>, Mariana Fernandes Martins<sup>1</sup>, Nayane da Silva Braga<sup>1</sup>, Pedro Guilherme Barbosa Jardim<sup>1</sup>, Rafaela Venancio de Souza<sup>1</sup>, Thais Carrer dos Santos<sup>1</sup>, Vinícius de Oliveira Santos<sup>1</sup>, Yasmin Gomes Lourencini<sup>1</sup>, Yasmin Catharine Silva Moro<sup>1</sup>, Idiberto José Zotarelli Filho<sup>2,3</sup> and Fabiana Arenas Stringari De Parma<sup>1</sup>

<sup>1</sup>UNIFEV-University Center of Votuporanga-SP- Medical Course, Brazil <sup>2</sup>FACERES – Facultyof medicine of São José do Rio Preto/SP, Brazil <sup>3</sup>Zotarelli-Filho ScientificWork, São José do Rio Preto/SP, Brazil

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\*Corresponding author: Maria Laura de Biasi Alves

#### ABSTRACT

This project addresses smoking as one of the most important Brazilian public health problems today. Thus, based mainly on statistics and policies brought by INCA, there is a dichotomy: at the same time that it appears as one of the world leaders in the legal issue of (tobacco) control. Brazil also ranks second among the largest producers of the product. The objective was to collect data, through the pre-test and post-test, regarding the knowledge of health agents regarding their actions towards the smoker, as well as to stimulate the clarification of the Community Health Agents about the activities to fight against smoking to be performed by professionals. Therefore, it is essential to emphasize health education in primary care to contribute to the achievement of individual autonomy and responsibility in the care of their health. This is a descriptive, quantitative, qualitative and exploratory study. The permanent education actions were developed by 15 academics, divided into 3 groups with 5 students each, from the UNIFEV Medical Course under the supervision of an advisor professor. The Problematization Methodology, based on the Arco de Maguerez method, was used to work with Community Health Agents belonging to the "Dr. Gumercindo Hernandes "," Dr. Jerônimo Figueira da Costa Neto "and" Dr. Ruy Pedroso ", from the municipality of Votuporanga-SP. The activity consisted of explaining the 5 stages proposed by the booklet "The Community Health Agent and Tobacco Control in Brazil" to approach the smoker: ask, evaluate, advise, prepare and monitor. These will be held in a total of 3 meetings. In the first meeting, it was intended for the link between academics and ACS, explanation of the research procedures, signing of participation terms, filling in a form to identify the participants, applying a pre-test to assess the quality of the agent's approach to the smoker, chat to make them aware of the importance of their role. In the second meeting, guidance was given based on active methodology, based on the first three stages of the booklet, which are asking, evaluating and advising. Finally, in the third meeting, guidance was given on the last steps to prepare and follow up; followed by post-test application. It was expected that the project would result in contributions to the teaching-service integration, intensifying permanent education actions, through the HEI, in addition to greater knowledge of the Community Health Agent in actions to prevent and combat smoking.

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## INTRODUCTION

Brazil is one of the world leaders in the legal issue of tobacco control because it employs control actions in the country through legislation, training of professionals, and research prepared by the National Cancer Institute (INCA) and the National Health Surveillance Agency (ANVISA). However, Brazil is still in the second position of the largest tobacco producers, around 928.3 tons/year (NUNES, SOB, CASTRO, et al., 2011). The percentage of adult smokers in Brazil has dropped significantly in recent decades. In 1989, 34.8% of the population over 18 years old was a smoker, according to the National Survey on Health and Nutrition (PNSN), of which 43.3% were men and 27% women. A significant drop in these numbers was observed in 2003 when in the World Health Survey (PMS) the percentage observed was 22.4%. In 2008, according to the Special Tobacco Survey (PETab), this percentage was 18.5%, in addition, The apparent official consumption of cigarettes per capita decreased by 65% between 1980 and 2010 (PNCT, 2012). The most recent data for the year 2013, from the National Health Survey (PNS), point to the total percentage of adult smokers at 14.7%. The reduction in statistics is due to the countless actions developed by the National Tobacco Control Policy, prepared by INCA in 2012. This policy established a minimum price per pack of cigarettes, prohibited smoking in closed collective rooms, private or public, at all the country, and banned the use of additives in all tobacco products sold in Brazil. Among the list of prohibited additives in tobacco products are substances that function as flavoring or flavoring agents; those with nutritional properties (eg amino acids, vitamins, essential fatty acids, and minerals); with stimulating or invigorating properties (egtaurine, guarana, and caffeine); fruits or vegetables; sweeteners, sweeteners, honey, molasses, spices, herbs and spices, and ammonia, thus Brazil was a pioneer in banning menthol in tobacco products (PNCT, 2012).

The essential characteristic of tobacco dependence is the presence of a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues to use the substance, despite significant problems related to it (WHO, 1993). After a drag, many events occur that temporarily benefit the individual: in less than 20 seconds, this substance reaches the individual's brain generating physical sensations of pleasure from the release of dopamine; there is relief from stress, anguish, depressive moments, that is, from a psychic point of view, a friendly relationship is created with cigarettes or any other derivative of it; you start to condition your habits to smoke since the act of smoking is inserted and carried out at different moments of the routine (INCA. 2014). The tenth revision of the International Classification of Diseases (ICD-10) (World Health Organization, 1993) classifies tobacco dependence (F17.2) as strong craving or compulsion to nicotine; difficulties in controlling use; ceasing or reducing causes withdrawal, need for increasing doses of nicotine; abandonment, despite harmful health consequences (WHO, 1993). Tobacco addiction explains why about 70% of smokers want to quit smoking, but cannot. Of these, about a third are successful for just one day and less than 10% are abstinent for twelve months. The definitive cessation of smoking usually only occurs after several attempts, and the number of relapses is very large (CHATKIN, 2006). Although 80% of smokers express a desire to quit smoking and 35% quit, less than 5% succeed each year in an attempt to quit without the aid of treatment

(AMERICANPSYCHIATRIC ASSOCIATION, 1996). The markers of nicotine dependence are the number of daily cigarettes, time to the first cigarette, concentrations of cotinine, degree of abstinence in the last attempt, and a number of failed (AMERICAN attempts to quit **PSYCHIATRIC** ASSOCIATION, 2008). Tobacco control is still a public health priority since, among the preventable causes of mortality, tobacco is the biggest one. And for control actions to be successful, production, health policies, prevention, smoking exposure, and cessation are essential (NUNES, SOV, CASTRO, et al., 2011). It is proven that the pharmacological approach is effective in smoking cessation, however, to inflate and improve the data it became clear that a joint behavioral cognitive approach is indispensable. The difficulties of these approaches are how to use them in such diverse populations (NUNES, SOV, CASTRO, et al., 2011). One of the ways to motivate someone to become a former smoker is to show that person the main personal and collective injuries caused by this disease. Among the possible complications to the smoker's body are neoplasms, mainly of the digestive and respiratory system: cardiovascular diseases, thus representing an important risk factor for coronary artery disease; breathing problems like COPD, pneumonia, and tuberculosis; dysfunctions in the reproductive system such as infertility, sexual impotence in men, early menopause in women. From the public point of view, the damage caused to passive smokers of all age groups, who are predisposed to allergic conditions, coronary diseases, breast and lung cancer with damage to the respiratory tract, even in children, should be emphasized, in addition to being harmful to pregnant women and the fetus, which can cause, for example, spontaneous abortion (INCA, 2014).

There is great importance for health professionals, especially those in primary care, to provide support for those who want to stop smoking, the health agent being a key player in this process. Thus, according to the booklet prepared for CHWs by the National Tobacco Control Program, 1989, the smoker's approach must consist of 5 procedures: asking, evaluating, advising, preparing, and accompanying the smoker (BRASIL, 1989). And for the purpose of establishing a reciprocal relationship between health services and the assisted population, valuing social needs, and bringing SUS closer to students and teachers. The National Curriculum Guidelines changed the traditional educational system to the one of active methodology that aims to develop an effective and productive teaching-service integration that aims to achieve one through permanent Education, for that it encourages knowledge and evaluation regarding the monitoring of the process construction of practices, together they observe the system and its errors, and in this way, these students and teachers promote reflection on this in a perspective of reconstruction of action (TATIANA MCM, HELLYDA SB, YASMIN MC, et al., 2018).

Therefore, the present study aimed to stimulate the clarification of Community Health Agents about the activities to combat smoking for the prevention activities of Primary Health Care, as well as to guide how to approach the smokers, to raise data about the knowledge health agents regarding their actions, expanding the population's ownership of the risks of smoking, contributing to the health services of Votuporanga, in the logic of the Teaching-Service-Community integration and the Permanent Education Policy of the Ministry of Health, interaction of medical students with health agents.

### **MATERIALS AND METHODS**

Study design: An observational-epidemiological study was proposed that aimed to previously evaluate the knowledge of Community Health Agents (CHA) of some Basic Health Units (UBS) in Votuporanga in the fight against smoking to propose permanent education actions that can contribute to the education work health of these professionals in the fight against smoking. The research group was composed of eight academics from the 5th period, six academics from the 7th period, and one academic from the 11th period, totaling 15 academics from the UNIFEV Medical Course and a faculty advisor. Permanent education actions were developed using the Arco de Maguerez methodology, the basis for applying the Problematizarão Methodology, which was developed in the 1970s, aiming to strengthen the need for a teaching perspective more focused on the construction of knowledge through observation of reality, reflection on the major determinants of the chosen problem, definition of the key points of the study  $\setminus$ investigation and theorization of each of the key points, elaboration of solution hypotheses for the problem and application of one or more of the solution hypotheses, as a return of the study to the investigated reality. Thus, this analysis of reality from different angles, allowed us to extract and identify the problems there and to develop strategies to solve them (COLOMBO, BEBEL, 2007).

**Participants:** Community Health Agents over the age of 18, with no determination of sex, race, gender, or socioeconomic status, belonging to the "Dr. Gumercindo Hernandes", "Dr. Jerônimo Figueira da Costa Neto "and" Dr. RuyPedroso ".The study was formed by a sample of 15 participants duly tendered by the Municipal Health Department.

#### Materials

# The following described materials were used as evaluative instruments:

Identification form and knowledge of the ACS profile. The Identification Form and knowledge of the ACS profile is a document prepared by academics, which aims to analyze and investigate the profile of the studied population through the following parameters: Name, age, length of service as ACS, the number of people in the who is responsible in your area, how many people in your area are smokers, if he has received any training to approach smokers, and if so write down the number of training sessions and when was the last one done if he is happy being CHA and whether working conditions are favorable to the performance of their duties.

**PRE-TEST AND POST-TEST:** Based on the booklet "The Community Health Agent and Tobacco Control in Brazil" prepared by the National Cancer Institute José de Alencar Gomes da Silva (INCA) in 2014, a Questionnaire was prepared with open questions about Smoking (Pre-Test) to initially assess the CHAs' prior knowledge of the subject before the intervention. After training, the Post-Test was applied to assess the effectiveness of the training performed by the students, observing the results of the Post-Test in comparison with the Pre-Test.

**Place:** Data collectionstookplace in the municipal offices: "Dr. Gumercindo Hernandes "- Street: Francisco Luis Ferreira - São João - Votuporanga-SP; "Dr. Ruy Pedroso" - Rua Amélio João Gossn, 2046 - Jardim das Palmeiras I - Votuporanga- SP and "Jerônimo Figueira da Costa Neto" - Av. Campo Grande, 4956 - Jardim Bom Clima - Votuporanga-SP. Analysis of the results was carried out in the library and classroomsofthe Centro Universitário de Votuporanga - UNIFEV, Campus Centro -Rua: Pernambuco, 4196 - Centro, Votuporanga - SP.

**Procedures:** For data collection, three meetings were foreseen in each UBS in November 2018. The students were divided into groups of 5 people, chosen by lot, with each group destined to carry out the activities in a UBS. The activities were developed as follows:

#### First date

- Establishing links and introducing academics
- Explain to the CHA all research procedures
- Signature of the Free and Informed Consent Form by the ACS
- Apply the Identification Form and knowledge of the ACS profile and the Pre-test
- Make a theater about the bad posture facing an ACS approach for smokers
- Explain the importance that the ACS has as an opinion maker
- After the first meeting held in the UBS, the students met for discussion and analysis of the pre-test, for a better approach in the second meeting (to emphasize erroneous and forgotten attitudes by the CHA)

**Second meeting:** An educational intervention was carried out using principles of the active methodology and the Arco de Magarez to inform the CHA about smoking, its harm, and how the population should be guided on this topic. The ACS was shown that the approach to smoking patients must be done in 5 steps according to the INCA 2014 booklet for the ACS: ask, evaluate, advise, prepare and monitor; in addition to interacting with each situation and listening to experience reports when the CHWs want to speak. This exposure and interaction were carried out using slides.

# On that day, only the first three stages of the booklet were covered

#### To ask

- Do you smoke? If so, ask:
- How long has it been?
- How many cigarettes a day?
- How long, after waking up, do you smoke your first cigarette?
- Are you interested in quitting smoking?
- Have you tried to quit smoking before? If formative, ask:
- What happened

# Assess: aims to identify smokers, know their degree of dependence and motivation to stop smoking

**Questions 1 and 2:** identifies whether the person is a smoker and assesses the likelihood of illness due to smoking (the greater the amount of cigarettes smoked in life and the earlier one begins to smoke, the greater the likelihood of illness) **Questions 3 and 4:** know the degree of dependence (smoking 20 cigarettes a day or more, the first being after 30 minutes of waking up, the greater the physical dependence and reinforces the need for referral).

**Questions 5, 6, and 7:** indicate the individual's interest in quitting smoking (those who are interested are receptive to the CHA approach; in addition to researching whether there has already been an attempt to stop smoking so that in positive cases, they reach their objective this time without making the same mistake).

#### To advise:

Report the harm of smoking

Report the benefits of smoking cessation

- After 20 minutes, blood pressure and pulse return to normal
- After 2 hours, there is no more nicotine circulating in the blood
- After 8 hours, the blood oxygen level will return to normal
- After 12 to 24 hours, the lungs already work better
- After 2 days, smell and taste improve
- After 3 weeks, breathing becomes easier and your circulation improves
- After 1 year, the risk of Acute Myocardial Infarction is reduced by 50%
- After 10 years, the risk of Acute Myocardial Infarction is the same as that of people who have never smoked, and the risk of lung cancer is reduced by 50%.

It was explained that even if you smoke a few cigarettes, you can get sick and die. Inform you that quitting smoking is always worth it, at any time in life. Explain passive smoking (relatives and friends can get sick and die from smoke). Remind the smoker that he will save

**Third meeting:** He continued with the presentation of the last two stages proposed in the booklet

#### Prepare to quit:

- Motivate you to schedule a date to quit smoking (preferably within the next 30 days)
- Inform you that the craving for cigarettes will pass in five minutes and will decrease over time
- If you are used to smoking after breakfast, you should avoid it! Replace with juice or ice water
- Brush your teeth right after meals
- Sucking ice, diet candy, chewing diet gum or ginger crystals as an alternative to cracks
- Always encourage the smoker to have something on hand to replace cigarettes
- Practice physical activity
- Eat a balanced diet
- Inform that the cigarette is not a friend
- Inform the family that he does not smoke because he wants to, but because of dependency (family support)
- If you are unable to quit smoking: refer to the SUS service that performs the treatment

#### Go along

- Congratulate you on all visits, being patient without smoking
- Alert: avoid situations that can make him smoke again (like lighting a cigarette or taking a drag); because if you go back to smoking, the addiction can be more intense
- Always encourage going to group or individual meetings to prevent relapse in patients undergoing treatment at the BHU
- In cases of relapse: welcome and encourage the smoker to seek the UBS that treats smoking; clarify that more than one attempt is sometimes necessary until you can definitely quit smoking

A theater of what the ideal approach / conduct for smokers would be like

Apply post-test

Completion and thanks

**DATA ANALYSIS:** Data analysis was performed using the content analysis technique through the categorization of more recurrent keywords that according to Bardin (2009, apud Silva and Assis, 2010, p. 150) "is a set of investigation techniques that, through of an objective, systematic and quantitative description of the manifest content of the communications, it aims at the interpretation of these same communications." This technique was chosen since authors like Minayo (2007) argue that it is the one that best meets qualitative research focused on health because the notion of the theme is linked to the affirmation of the respondents regarding the research discussion. Also, data tabulation was performed by Google Forms Software. After being collected, the data were inserted in the web platform and Excel (Portal Action) for the preparation of statistical tables and graphs.

### **RESULTS AND DISCUSSION**

In this chapter, the results obtained and discussed for each question answered in the pre and post-test by the CHA will be presented comparatively. Most agents are between 30 and 40 years old, followed by those between 40 and 50 years old, followed by those over 50 years old, followed by those between 25 and 30 years old and the minority is under 25 years old. Most agents are aged between 30 and 40 years, followed by those aged 40 and 50, followed by those over 50, followed by those between 35 and 30 and the minority is under 25. These results corroborate with those found in research carried out by other authors who also surveyed the age group (authors: Dixis Figueroa Pedraza and Iná Santos). It was evident that about sex, the vast majority (about 76%) are female. Similarity was found with another study in which, also, there is a predominance of females. (authors: Dixis Figueroa Pedraza and Iná Santos). A little more than most participants are married (52%). It was found that the majority of community workers are single (52.38%). This data contradicts the data presented in another article, in which 50% of the participants are married. (authors: Maria RizoneideNegreirosAraújo and Raquel Silva Assunção). Regarding education, most studied until high school (62%) and few have higher education (38%). These data are also confirmed in another study, in which more than 77% of community workers attended high school.

(authors: Maria Rizoneide Negreiros Araújo and Raquel Silva Assunção). About 67% of CHA have 5 to 10 years of service, 19% have between 1 and 5 years, 9% have more than 10 years and only 5% have less than one year. These data are controversial in the face of other work carried out, in which more than half of the CHA remained at work in a period of 2 to 3 years. (authors: Maria Rizoneide Negreiros Araújo and Raquel Silva Assunção). Regarding training on the approach to smokers, about 81% of CHA reported never having done it, the rest who have ever done it, reports that it was 7 years ago (only in one of the UBS where the work was done). Given these data, it does not show in other studies that they corroborate or disagree. About happiness in working as CHA, 62% said they were satisfied, 24% reported that they are not very satisfied and 14% showed that they were not at all satisfied. The job satisfaction process is the result of an interaction between general living conditions, relationships at work, the work process and the control that workers themselves have over their living and working conditions (SARTORETO; KURCGANT, 2017). Given this, it can be understood that the data go against the authors, who refer workers' dissatisfaction mainly when the territory is vulnerable and the working conditions are insufficient. Regarding the conditions to develop their work, 81% said they did not have favorable conditions. Job satisfaction is related to occupational factors and personal aspects. The workload interferes with the time available for leisure, which are activities that bring joy and a feeling of well-being to the worker and are therefore essential for physical and mental disposition, directly related to work capacity. Satisfactory wages and extra benefits positively impact the professional's commitment (BARBOSA et al., 2018). Given these data, it is possible to observe the divergence in the responses of the participants, who claim to be satisfied with the work but do not have favorable working conditions.



Figure 1. Observed data from question 1

Through the answers obtained from this question, one can classify each of them as people who harm themselves, people who use cigarettes as an escape from problems did not know how to express their opinion, CHWs who are prejudiced, and people who need help. This question had the primary objective of evaluating the CHW's view of smokers. After the lecture, the objective of a correct answer, according to the booklet "The Community Health Agent and Tobacco Control in Brazil" of the Ministry of Health of 2014, was that they are people with a chronic disease caused by nicotine dependence and who need help to quit the addiction. According to the results obtained from this graph, all the people who mentioned



Figure 2. Observed data from question 2

that smokers are people who harm themselves, who use cigarettes as an escape, and who had prejudice, changed their way of seeing them, reaching no answer like that and drop in the others, respectively, in the post-test. In addition, after the lecture, the number of people who did not know how to give an opinion on the topic increased, along with those who mentioned that they are people who need help. It can be concluded that the project had a positive impact on the way CHWs interpret what smokers are. According to the IBOPE 2011, more than 80% of the participating population believes that the government has an obligation to inform about the risks related to the consumption of alcoholic beverages and cigarettes, so that the citizen over 18 years of age can make his choices consciously and that even aware of the risks associated with cigarette consumption, citizens over 18 have the right to choose between smoking or not. However, that number drops to 60% when asked if the rights of a citizen who smokes should be respected, as well as the rights of those who do not smoke. In other words, the population believes that it is the government's responsibility to change this social reality but there is prejudice against smokers as they believe that they should not be respected in the same way as those who do not smoke (IBOPE, 2011). Authors refer that the care of the smoker by a trained professional is not a reality in the health system, this care is still based on the search for signs and symptoms instead of the person as a whole and their social context, that is why the aspects that influence the smoking cessation are often not addressed by professionals. For this reason, there is a need to broaden the focus of health professionals, as the understanding of the representativeness that tobacco has in the context of the person influences the breaking of dependence (VELOSO et al., 2011).

According to the booklet "The Community Health Agent and Tobacco Control in Brazil" of the Ministry of Health in 2014, cigarette dependence is justified by three factors, namely physical, psychological and conditioning dependence. All people in the pre and post-test reported that, yes, smoking causes dependence. However, in justifying the causal factors, it was considered wrong for those who did not know how to justify or for those who answered incorrectly; for those who placed only one or two dependencies it was considered an incomplete answer and for those who cited all three it was considered correct. Through the analysis of the graph it is possible to observe that the number of correct answers in the post-test decreased, but in contrast the number of errors decreased and the number of incomplete answers increased. The speed in answering the post-test and the rush to be dismissed are factors that justify the drop in the number of correct answers.



Figure 3. Observed data from question 3

According to the MS definition of active smokers (users of tobacco products) and passive smokers (people who live with smokers in closed environments), it was possible to classify the answers of the tests as correct or incorrect. In the pre-test, 91% of correct answers were observed, with errors justified by not knowing how to answer the question. In the post-test, 100% of the project participants were successful.



Figure 4. Observed data from question 4

There are several consequences for active smokers, including cancer, cardiovascular disease, respiratory disease, infertility, sexual impotence in men, early menopause in women, osteoporosis, cataracts, and macular degeneration. Thus, responses were classified according to the number of examples of possible consequences that active smokers were subjected to. In the pre-test, most participants did not mention any example or just one. However, in the post-test, most cited two to three examples.



Figure 5. Observed data from question 5

This question was assessed in the same way as the question mentioned above (question 4), which was according to the number of examples of the possible consequences that passive smokers were subjected to (from allergic conditions, to acute myocardial infarction, stroke, emphysema lung, lung cancer

and breast cancer). The answers obtained from the questions reveal that even though they have no formal knowledge about secondhand smoke, CHWs relate the term "secondhand smoke" with something that can interfere with health, cause illness and death, revealing common sense conceptions (MORTIMER, 1996). In the pre-test, most participants did not mention any example or just one. However, in the post-test, most said that the consequences are the same as those of active smokers (which was considered wrong - zero example because only a few are the same). The people who cited 2 examples in the post-test were greater than in the first test and some people cited 3 examples in the post-test (no person mentioned 3 examples in the pre-test). Thus, it is possible to perceive that after the exposure of the information, some CHAs acquired the knowledge that there are many harms to passive smokers, but it is visible that with the pattern of the responses they did not acquire knowledge about the differences between them.



Figure 6. Observed data from question 6

In this question, all participants in the pre and post-test answered that it is important to advise smokers, except for one person in the pre-test who was unable to give an opinion. According to the MS ", every smoker should be advised to stop smoking, emphatically, but without aggressiveness" to help them and encourage them to stop this practice. Those answers that came close to the justification of the Ministry of Health were classified as certain and the answers that differed from it were wrong. Through the graph, it can be concluded that the number of correct answers increased drastically and the number of errors decreased in the post-test.

According to the Tobacco Use and Dependence Guideline Panel of the U. S. Public Health Service, all patients should be questioned about smoking, and responses should be documented regularly. Evidence shows that this procedure intensifies the professional's intervention rates. Once the tobacco user is identified and alerted to stop smoking, it is necessary to assess the patient's willingness to reach the goal at the current time.

Every professional should strongly warn each patient who smokes to stop smoking, as evidence shows that professional guidance increases abstinence rates. Brief interventions, lasting less than three minutes, increase overall rates of smoking abstinence. Each tobacco user should, at a minimum, receive a brief intervention, regardless of whether or not he has been referred for intensive intervention. Treatment through interpersonal contact, in four meetings or more, seems to be especially effective in increasing the abstinence rate. Therefore, whenever feasible, the professional should endeavor to carry out at least four consultations with individuals who are quitting smoking. Proactive telephone counseling, as well as group and individual counseling, are effective and should be used in interventions to stop smoking (FIORE, 2008).



Figure 7. Observed data from question 7

The benefits of quitting smoking are divided into eight stages, according to time. Which are: after 20 minutes: blood pressure and pulse return to normal, after 2 hours: there is no more presence of nicotine in the blood, after 8 hours: the level of oxygen in the blood normalizes, after 12 to 24 hours: the lungs work better after 2 days: taste and smell start to improve after 1 year: the lungs regain the ability to clean themselves after 1 year: the risk of heart disease is reduced by half and after 5/10 years: the risk of heart disease is the same as that of people who have never smoked (CORRER, 2016). The responses were analyzed according to the number of benefits cited. In both tests, all respond that there are benefits to quitting smoking. Through the graph, it is observed that most of the people who participated in the pre-test did not know any benefit or knew only one. In contrast, in the post-test most cited an example, however, several others cited two, three, five, and six examples (which did not happen in the pre-test).



Figure 8. Observed data from question 8

According to MS, there is no age limit for smoking cessation. In the pre-test, about 23% of the participants were in doubt, answering "I think so" or "I think not". In the post-test, 100% were in agreement with the MS data. According to Goulart Denise et al. the benefits of smoking cessation are greater among younger people, but smoking cessation at any age reduces the risk of death and improves overall health. After smoking cessation, an increase of two to three years in life expectancy is expected among elderly people aged 65 and

over, who smoke up to a pack of cigarettes a day (Goulart Denise et al., 2010).



Figure 9. Observed data from question 9

The correct answer to this question according to the MS is yes because the benefits change according to the time of exposure to toxic agents of tobacco and not relative to age. According to the justification in the graph above, it is possible to perceive the benefits of smoking cessation at any age. Through the analysis of the graph, it is possible to verify that in the pre-test 14% answered that they have doubts if there are benefits, 5% answered that there are no benefits, and 86% answered that there are benefits. In the post-test, 100% of the responses were consistent with the standard response. Therefore, it is observed that the intervention was 100% satisfactory.



Figure 10. Observed data from question 10

In the booklet of the MS and INCA, CHAs are instructed to ask seven questions to smokers, which covers the sequence of five procedures: asking, evaluating, advising, preparing, and monitoring (INCA, 2014). The responses were analyzed according to the number of questions cited per test. In the pretest, most people answered that it is necessary to ask questions, except for two people who reported that it is not necessary and entered the chart as zero citation. The prevalence of sample questions is mostly for zero citation, decreases when referring to a citation, further decreases the number of responses with two citations, and no answer cited more than three examples. However, in the post-test there was a balance between not mentioning any example, mentioning two or three; 7% of responses cited six examples. Counseling for smokers is carried out to expose both the harm and the benefits. This question was classified as correct for those who mentioned the harms and benefits, incomplete when they mentioned only one of the two, and wrong for those who did not mention any of them.



Figure 11. Observed data from question 11

According to meta-analysis studies, there is greater success in smoking cessation when the health team advises the smoker. Also, rates increase the longer the orientation time to which smokers are submitted. In one of the studies, the abstinence rates when the smoker does not receive guidance was 10.9%. when he is advised for less than 3 min the rates rise to 13.4%: 16% if advised between 3 and 10 min and 22.1% when advised for more than 10 min. Thus, it is concluded that it is essential to discuss with the health professionals, mainly health agents, the influence of their guidelines on smoking cessation and reinforce, therefore, the importance of carrying them out (RODRIGUES, 2014). All participants, in the pre- and posttest answered that they should carry out counseling. In the pretest, about 90% of the answers were wrong or incomplete and only 9% were correct. However, in the post-test the majority was correct, some responded incompletely and the minority was wrong.



Figure 12. Observed data from question 12

This question was classified as correct for those who answered yes to the preparation of smokers by the CHA and cited examples as shown in the booklet and considered wrong those who answered no to the first question or yes, but who did not justify it correctly. Looking at the results in the graph, it is possible to say that in the pre-test the vast majority of people made mistakes (86%) and few got it right. However, in the post-test, most were correct (60%) and the rest (40%) were wrong (but all answered yes to the first question, different from the pre-test). The importance of this question lies in the fact that many smokers abandon treatment over time, as they are faced with major challenges such as abstinence and their real intention to stop smoking so that often the psychological distress they are left with submitted can discourage them and make them feel unable to overcome their addiction. It is concluded, therefore, that users should be instructed on the difficulties they will encounter throughout the process and thus highlight the importance of persisting. Using the MS booklet as a reference, the CHW can assist the smoker with some tips that have already been mentioned in the methodology of this project (NUNES, 2014).



Figure 13. Observed data from question 13

The correct answer to that question would be "(...) to welcome and encourage (..). And to clarify that, in most cases, more than one attempt is necessary until one can permanently quit smoking." From MS.It was classified in the graph as correct for those who approached this answer and wrong for those who did not. Through the analysis of the graph it is concluded that an increase in the number of correct answers in the posttest, which proves the effectiveness of the intervention. According to research, welcoming and qualified listening are fundamental for the creation of a bond of trust between health professionals and smokers. The humanized and ethical approach facilitates the effective and efficient application of the action plans existing in health networks aimed at combating smoking, increasing the user's resolution and treatment. Thus, it is necessary for health workers to be trained, including to know the situation of abstinence, understanding that depression and anxiety may be part of it depending on the individual's mental conditions. Thus, it is concluded that the support and reception of health professionals in the entire process is important, even in times of relapse to re-stimulate these users with new strategies (NUNES, 2014).



Figure 14. Observed data from question 14

The responses they congratulated were classified as right and the others were classified as wrong. In the pre-test, most answers (55%) were categorized as wrong, but in the post-test 100% of the answers were correct.

Some studies show that the adherence to the number of users who participate in the groups to stop smoking tends to decrease during the treatment and that in the last meetings only those who are committed to their intention to quit smoking remain. Therefore, it is of utmost importance to congratulate smokers who are managing to quit, so that they know that victory is aimed not only by them and that they are not alone in this fight alone, reinforcing their persistence and their potential in order to encourage them to abandon addiction for good so that they no longer have relapses (NUNES, 2014).



Figure 15. Observed data from question 15

With the lack of training in the approach to smokers and the ignorance of the INCA and MS booklet about how the CHA can carry out this approach, several project participants did not believe that this work position could cause a smoker to quit. However, after the presentation and interaction between academics and ACS, it was possible to show that there is a lot to do besides giving the medicine recommended in the treatment. There are three types of addiction and among these three, only one is combated with the medication. That is why it is of utmost importance that the CHA knows its real capacity to increase the number of people who are successful in trying to stop their addiction, through intervention in the other two dependencies that are not related to the drug or the lack of it in the body. In the pre-test, only 64% of the participants believed it was possible to help a person to quit tobacco addiction in the CHA position.

After the intervention, in the post-test the number of these people who believed increased 23% (reaching 87% of the participants). The second part of the question was not measured in the graph, and only two CHWs were able to accomplish this feat. The importance of the Health Agent in health-related to the importance of stopping smoking is shown by studies that show that often health professionals, such as doctors, find it important to address smoking in clinical consultations, however, they find barriers to it such as lack of time during consultations, personal limitations, socio-cultural barriers, among others. Thus, the health agent presents itself as a key player in this context, since he can be a great mediator between the actions that occur within the unit and the population of the territory, which corroborates the results above related to the increase in the number of health agents who feel able to assist the smoker in the process of quitting addiction after the training carried out from the present project (SANTOS et al., 2019).



Figure 16. Observed data from question 16

In this last question, everyone answered, both in the pre and post-test, that it is important to have a group of smokers. However, for the second part of the question (whether they would be willing to participate in this group as CHA) in the pre-test, one person replied that he would not participate and one replied that perhaps and in the post-test, only one person replied that he would not participate. As can be seen in the result of the research above, the importance of having a group of smokers in the Basic Health Unit is already known by health agents. According to some studies that assess the dynamics of these groups, their relevance consists of the dialogued discussions that take place between health professionals and smokers, allowing the exchange of experiences and achievements among the participants, support from the team in the face of the challenges encountered by patients through the cognitive-behavioral (MORAES, 2015).

#### Conclusion

Because of the data obtained through the tests, it can be concluded that the intervention had a positive effect on the CHA, making them have more instructions and are duly protected by the INCA-MS booklet for carrying out the intervention. It was possible to notice that there is no training on this topic (those that have been done for years), which proves that there is not much incentive from the government when it comes to leaving psychological and conditioning dependence, focusing only on the meditation part.

Also, there was a great deal of resistance from the CHA to the arrival of academics, both because they disbelieved that they were able to take a person out of addiction and because of the lack of interest in the subject. The results could have been better if the project participants had paid more attention to the lectures. Thus, it is concluded that the lack of training of the CHA team on this approach and the lack of interest in the area is a major limiting factor to acquire to carry out their work with excellence. Finally, the intervention showed beneficial results for the target audience.

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The authors declare no conflict of interest.

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