ORIGINAL RESEARCH

Smoking cessation assisted by primary healthcare professionals

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ABSTRACT

Background: The effectiveness of smoking cessation treatments has been well studied, but most smokers quit without assistance from a health professional. To further improve our understanding of how primary healthcare efforts can benefit patients who attempt to quit, we need a deeper understanding of how the process unfolds when assisted by a primary healthcare professional and how this is experienced by the smoker.
Objective: To construct an emergent model of the smoking cessation process assisted by a primary healthcare professional.
Methods: Data were collected from video recordings of primary healthcare professionals in office sessions to promote smoke cessation in Barcelona Province (Catalonia, Spain). Thirteen smokers and their primary healthcare professionals engaged in 24 preparatory sessions and 23 follow-up sessions. Data were analysed according to Constant Comparative Analysis Method along with conceptual and theoretical frameworks.
Results: Smoking cessation is a social process that is shaped by interactions and relationships with primary healthcare professionals. Four categories explain the process: 1) Feeling addicted and wanting help to quit smoking; 2) Preparing to quit smoking: anticipating abstinence; 3) Managing smoking abstinence: a positive or transitional process; and 4) Controlling the urge to smoke: a central process in smoking cessation.
Conclusions: Primary healthcare professionals treat smoking behaviours as a health problem and supervise the process of enabling the smoker to learn how to control the urge to smoke. Learning to control smoking abstinence is not always enough to enable the individual to reorganize and restructure daily life without cigarettes. Primary healthcare professionals should be encouraged to incorporate not only logic and scientific evidence but also the subjectivity of the patient's attitude into efforts to better respond to the changing, complex nature of the smoking cessation process.

Key Words: Addiction, Medicalization, Primary healthcare, Qualitative research, Smoking cessation

1. INTRODUCTION

Tobacco use is a preventable health problem linked to 25% of deaths before age 65 in developed countries[1, 2] and the principal cause of premature death in these populations. In Spain, primary healthcare (PHC) professionals have a central role in the smoking cessation process.[3] They have access to electronic health records systems that identify smokers and recommend intervention strategies, including drug treatment and behavioural modification.

Research has shown that effective smoking cessation interventions do exist.[4] The combined strategy of drug treatment and behaviour modification most effectively achieves continued smoking abstinence.[5] Nonetheless, relapse occurs in many quit-smoking attempts.[6, 7] Although there is no

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doubt that nicotine addiction contributes to the difficulty of smoking cessation,[5] the smoker's social context also plays a role.[8,9] Various studies have shown how the social environment affects smoking behaviours, including a relationship between the decrease in cigarettes smoked in western societies and increased awareness of the dangers of tobacco use, the socioeconomic status,[8] the changing social norms, and governmental actions to regulate tobacco use, the sale of cigarettes, and warning labels on cigarette packaging.[10] On the other hand, researchers have described interpersonal factors that may contribute to an individual's success or failure in quitting smoking. A lack of support and the capacity to negotiate new relationships with others that do not include cigarettes also contributes to the success or failure of the process.[11,12] These studies were oriented toward assessing the efficacy of interventions and the factors associated with sustained abstinence vs. relapse.

On the other hand, a systematic review by Edwards et al. show that the majority of smokers quit or attempt to quit unassisted.[13] Some studies, from the smoker's perspective, have attempted to understand why smokers prefer to quit unassisted. A qualitative study found that the smoker hoped the PHC professional would provide smoking cessation assistance more adapted to his or her needs.[14] Others have shown that, even with increasingly medicalized smoking cessation efforts, the smokers often described unassisted quitting as the best method, expressed concerns about the secondary effects of drug therapies and a negative attitude about receiving assistance.[15] These studies have not been specific to the PHC setting.[16]

This debate requires a deeper understanding of how the process can be assisted by a PHC professional, providing smokers with behavioural interventions with or without pharmaceutical treatment.

The aim of this study was to construct an emergent model of the smoking cessation process assisted by a PHC professional, from an inductive point of view, that would explain the process from the moment a smoker decides to quit until smoking cessation is accomplished within the PHC setting. The underlying questions addressed by this study were the following: Why do smokers decide to quit with assistance from a PHC professional? What strategies do the smoker and the PHC professional adopt during this process? Are there differences between individual trajectories in this process? If so why? A better understanding of how this process is experienced and interpreted by the smoker and the PHC professional could improve smoking cessation success rates. In addition, the availability of a model will be valuable to nurses as they formulate questions about the process of quit-

ting in their follow-up of patients who smoke, and useful in training future nurses to help them understand the process of smoking cessation in a dynamic, process-oriented manner.

2. METHODS

2.1 Design

A qualitative research design was chosen in order to be able to answer the research questions by developing a "thick description" of the PHC professional-assisted quit smoking process in the PHC setting. As described by Geertz,[17] "thick description" is a detailed explanation of the behaviour and the context, so that the behaviour becomes meaningful to someone unfamiliar with the phenomenon being studied.

2.2 Participants

Study participants were selected as part of the Systematic Intervention on Smoking Habits in Primary Healthcare (the ISTAPS study, Spanish Acronym), a multicentre cluster-randomized trial, carried out in Barcelona Province (Catalonia, Spain). The overall objective of the ISTAPS study is to evaluate the effectiveness of a stepped primary care smoking cessation intervention.[18]

Three nurses (1 male, 2 female) and four doctors (2 male, 2 female) agreed to recruit smokers for the study. At the end of an office visit (for any reason), they asked about smoking habits, informed the patient about the study, and invited participation. The strategy used to select the smokers included in this study was maximum variation sampling.[19] Selection criteria were sex (male-female), age (>18), socioeconomic status,[20] nicotine dependence (high, moderate and low according to the Fagerström test score)[21] and motivation to quit smoking (moderate and high according to the Richmond Test score). In addition, patients were selected if they agreed to their office visits being recorded for a period of six months. Thirteen participants met these inclusion criteria. Participant characteristics are summarized in Table 1.

2.3 Ethics considerations

The Ethics and Clinical Research Committee of the Jordi Gol Institute of Research in Primary Healthcare approved the project. Participants were informed that the research focused on the patient-PHC professional relationship in discussions about smoking; they provided signed informed consent that included permission for audiovisual recording of the interviews. Participant data was coded to ensure confidentiality. Transcripts were anonymous but also linked to the participant code, providing analysts with context (age, sex, *etc.*) for comments selected from the verbatim transcripts.

2.4 Data collection

All smoking cessation conversations during an office visit were video recorded. Participating PHC professionals followed the Clinical Practice Guidelines for the Detection and Treatment of Tobacco Use in Primary Healthcare in Catalonia[3] to conduct the session in the preparation phase (1 or 2 sessions, depending on the smoker's availability) or during 6-month follow-up (3 or 4 visits). With smokers preparing to quit, the conversations included the motivation to stop smoking; assessment of nicotine dependence and the possibility of drug therapy; evaluation of the support available in family, social, and employment settings; strategies for preparing to make smoking behaviours less "automatic" and avoid difficult situations; and questions about how to approach D-Day (quit day) and the first few days immediately thereafter. The follow-up sessions focused on the abstinence achieved, the effectiveness of the drug therapy (if applicable), and an evaluation of the individual's relationship with his or her surroundings and ability to handle difficult situations.

A total of 47 sessions (15 hours 30 minutes; 23 preparatory and 24 follow-up sessions) were transcribed and analysed for the 13 selected participants (see Table 1).

Table 1. Characteristics of smokers

Code	Sex	Age	Socioeconomic status	Fagerström Test	Richmond Test	Nº Preparation sessions	Nº Follow -up sessions	Nº Total sessions
Case 1	M	40	IV Partial qualifications	Moderate	High	1	2	3
Case 2	F	53	II Small business owner	High	High	1	4	5
Case 3	F	23	III University degree, business manager	Moderate	High	3	3	6
Case 4	M	29	III Non manual qualifications	Moderate	High	3	3	6
Case 5	M	52	IV Partial qualifications	High	High	1	2	3
Case 6	M	40	III Non manual qualifications	High	High	2	3	5
Case 7	M	68	IV Partial qualifications	Moderate	Moderate	2	3	5
Case 8	F	25	III Non manual qualifications	Low	Moderate	2	2	4
Case 9	F	46	V No qualifications	Moderate	High	1	1	2
Case 10	F	30	III University degree, business manager	Moderate	High	3	0	3
Case 11	F	31	III NM Non manual partial qualifications	High	High	1	1	2
Case 12	F	40	IV Partial qualifications	High	High	1	1	2
Case 13	F	63	IV Partial qualifications	Low	Moderate	1	0	1

2.5 Data analysis procedures

The Constant Comparative Analysis (CCA) method was used in conjunction with a conceptual and theoretical framework to give meaning to the data. The use of CCA ensures that all data are systematically compared to all other data in the data set and permits the identification and classification of data variations.[22] The literature recognizes the use of CCA outside of Grounded Theory and has established that it supports qualitative research without the need to create a substantive theory.[22, 23]

During first-level analysis, transcribed data were reduced using constant recoding.[24] Open coding and axial coding[25] were used to structure a conceptual framework that identified and related concepts and grouped them by categories. The use of CCA on the different experiences analysed identified and confirmed the existence of a trajectory of PHC professional-assisted smoking cessation. In a second level of analysis, a theoretical framework was constructed to interpret that trajectory, applying the concept of self from the theory proposed by Mead[26] to explain the impact of quitting smoking on the self; the Stages of Change Model described by Prochaska and DiClemente[27] using its concepts of process, learning, and relapse; and Foucault's concept of medicalization as a form of social control by PHC professionals, converting a personal or social problem into a health problem.[28] Data were managed using Atlas/ti.7.5.

2.6 Rigor and quality of the study

The study followed established criteria for qualitative studies.[29–31] The CCA method allowed the researcher maintain an emic perspective for analysis. The categories were tested using this conceptual and theoretical framework. The study findings were illustrated with specific, relevant sequences that support the interpretation of study results. Finally, the researcher reflected on his or her own experience with smoking cessation and introduced these reflections as part of the questions asked of the data during the process of analysis.

3. RESULTS

Four categories explain the process and meaning of quitting smoking in the PHC setting: 1) Feeling addicted and wanting help to quit smoking; 2) Preparing to quit smoking: anticipating abstinence; 3) Managing smoking abstinence: a positive or transitional process; and 4) Controlling the urge to smoke: a central process in smoking cessation.

3.1 Feeling addicted and wanting help to quit smoking

A sense of being an addict was often described during the first session with the PHC professional by smokers who want to quit. Smokers (identified by case [C] number) felt that their addiction interfered with their social life because of their nicotine dependence; they had to adapt their daily life to their habit, resulting in habits and rituals that ensured they would be able to smoke.

> C6: It's horrible. I don't even realize it. Sometimes I'm not even aware I'm smoking. I finish one and grab another one.

The discomforts and problems were not limited to nicotine dependence, but included cognitive dependence (*e.g.*, smoking as a reward for making a special effort or as a tool to regain a sense of order in a moment of chaos) and dependence on certain situations (*e.g.*, smoking in response to certain tastes, smells, or visual cues).

> C3: I feel such emptiness (...) when I smoke a cigarette I can take on the world.

These individuals felt that the cigarette was central to their daily life and they would not be able to have a "normal" life if they knew they would not be able to smoke. This perception of addiction and discomfort had an impact on the desire to quit smoking. Participants formulated their perception of addiction in terms of a desire to quit but at the same time recognized the difficulty involved and the need for professional support during this process. Asking for help required multiple elements: acknowledging that smoking cessation is difficult because it is an addiction; understanding previous failed attempts and relapses; having the goal of a successful quit attempt; and perceiving that the PHC professional can provide specialized support.

> C3: This time I'll make it, I have to, because I'm a person who can and because if I go to the doctor it's to get help to achieve it.

We identified only one case in which the patient did not feel addicted to smoking or express a need for help to quit smoking (see Figure 1).
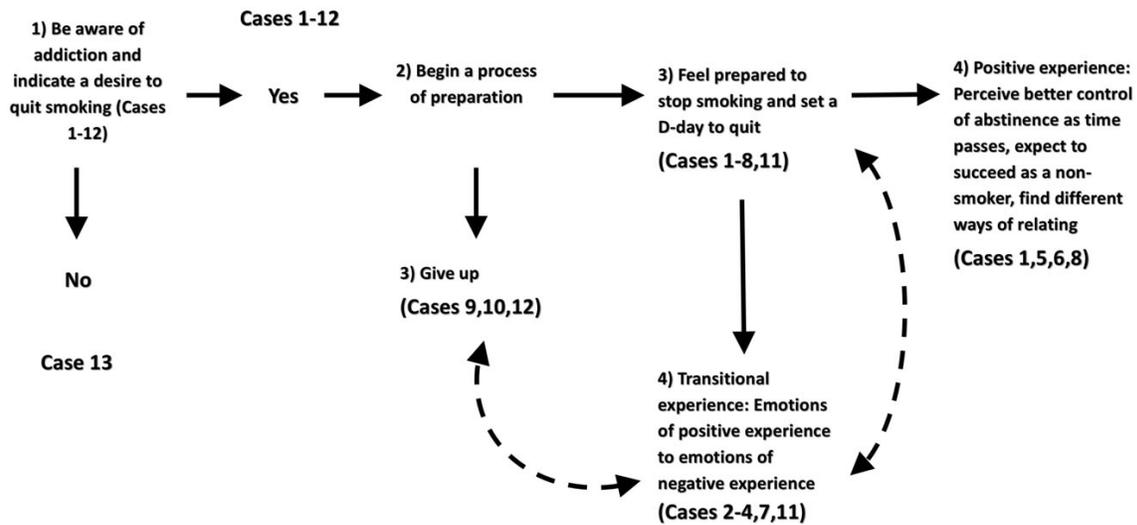

Figure 1. Process of smoking cessation with the suport of a healthcare professional

> C13: It wouldn't be hard for me to quit because I smoke just to smoke. In my case, it's not a vice.

This case was discarded in later stages of the MCC analysis because the patient rejected assistance from the PHC professional. We could deduce, therefore, that the PHC professional's intervention doesn't "interest" the smoker who does not feel addicted and the model that emerged from our data does not represent individuals with a limited perception of addiction to smoking.

3.2 Preparing to quit smoking: anticipating abstinence

Once a person decided to try an assisted quit-smoking attempt, the patient-PHC professional sessions focused on preparing to quit smoking. The PHC professional followed evidence-based recommendations on smoking cessation.[32] Within this framework, it is also important, as our data repeatedly shows, that the PHC professional asked questions to help the patient define his or her own rules and strategies to maintain abstinence in the future and conquer personal situations of risk.

In these conversations, smokers become aware of actions they have taken, emotions they felt, and reactions from others. As they describe their experience, the PHC professional interprets them, adopting a health-care perspective and offering explanations and alternative approaches to the challenges they face. The preparation stage becomes "anticipation" of what can happen when smokers try to quit smoking.

Feeling supported by their environment, successfully reducing the number of cigarettes smoked, and being confident of their ability to maintain their level of abstinence while reducing nicotine intake were conditions that favoured the participants' persistence in preparing for an attempt to quit smoking. This interpretation was reinforced by the PHC professional.

> C1: I've really controlled myself, so like you said, I put one of those coffee stirrers in my mouth and I resisted the urge.

Unfavourable conditions during the preparation phase included concern that the timing was not ideal for a quit-smoking attempt (*e.g.*, a family conflict situation), a fear of possible failure, not feeling supported by family, friends, or at work, and not accepting the recommendations offered by the PHC professional.

When sufficiently appropriate conditions existed, smokers moved ahead in their supported smoking cessation process; otherwise, smokers saw a major difficulty in quitting smoking and they gave up on the process, with empathy from their PHC professional.

Three patients abandoned their attempt to stop smoking, two of them (cases 9 and 12) because of a difficult family situation (see Figure 1), as in this sample comment:

> C9: What's happening is that I have a problem at home (...). On Saturday we had a fight, and I stood up to him. (...) So Saturday I had a lot of tension. I suppose if I were calmer I could quit for sure, because Friday at work I didn't smoke.

In case 10, the patient would not agree to complete certain tasks proposed by the PHC professional, such as setting a specific date as D-Day:

> C10: I think that planning a specific meaningful date isn't a better way to do it. I think it's worse, that I'll smoke everything I shouldn't smoke. (...) I don't really think that smoking is harmful. The other day I told a friend that there are a lot of things in life that can hurt you and that's not a good excuse – then we'd have to give up all the things we do. I don't see that we have to quit for health reasons.

3.3 Managing abstinence: a positive or transitional process

After the patient's D-day, the conversations between the PHC professional and the patient turned to managing the urge to smoke. The PHC professional presented controlling abstinence as a learned behaviour that requires trying, readjusting, improving, maintaining, or changing things. In addition, the experience of abstinence becomes a personal experience and, if interpreted as such, will be evaluated in a unique, personal way.

Having arrived at this phase, the data indicated two patterns, or types of processes. There was a "positive pattern" (see Figure 1, cases 1,5,6,8) in which the individual felt he or she was controlling the urge to smoke and the process was directed toward becoming a nonsmoker, and another pattern we called "transitional" (see Figure 1, cases 2,3,4,7,11) because the person did not feel in control or had low expectations of success. This smoker moved between positive and negative emotions or experiences and between smoking and not smoking, and the process either moved forward toward success or the smoker returned to preparing a new attempt to quit smoking.

The positive process was characterized by an emphasis on improvement and change. In conversations with the PHC professional, the smoker showed evidence of effective strategies for controlling anxiety and the need to smoke, of perceived support from his or her surroundings and from the PHC professional, of a sense of decreasing anxiety as each day passed, and of changes that reinforced his or her sense of self and relationships with others (*e.g.*, managing not to smoke in particular situations of everyday life) and of positive emotions generated by a conviction that it is possible to become a nonsmoker. When these conditions were sufficiently evidenced and interpreted as positive, the individual persisted in the attempt to quit smoking.

C6: Now I have an idea of what life is like without smoking.

C1: Yes, now I see that I can get through the day and if I don't smoke, it's not a problem.

C8: I don't know, I feel good, really good. Maybe I am proving some things to myself.

In contrast, the transitional process was characterized by an accent on difficulties and negative emotions. The smoker assumed that using the strategies would not be effective in controlling anxiety or nervousness. Participants talked about how their social environment did not support their efforts or they blamed others for having caused them to smoke a cigarette.

C7: Well ... well, my friends and I were playing cards, and "here, have one" and "leave me alone for God's sake" and I was tempted. "He is going to explode, he wants one so much." So I just took one, it was easy.

C4: I blame him, because I told him, if you're going to smoke just one, don't smoke any at all. I get rid of the tobacco and then we won't see it and that will be better. And in the end, the one who fell for it was me.

Some said they did not believe it was possible to stop being a smoker or that the negative changes they experienced were not worth the effort (*e.g.*, weight gain, decline in social relationships). There were also problems interacting with others without bumming a cigarette. They did not manage to redefine ways to interact with their surroundings without smoking, which resulted in a negative experience of abstinence and a relapse to smoking cigarettes.

In brief, the quit-smoking experience is a social process that takes on its shape through interactions and relationships. Interaction with a PHC professional is not always sufficient to enable a smoker to reorganize and reshape his or her life without cigarettes.

3.4 Controlling the urge to smoke: a central process in smoking cessation

Analysing the different experiences with smoking cessation in the PHC setting allowed us to build a model in which the social process of resisting the urge to smoke is central, cuts across all the stages of the smoking cessation process, and explains the variability in the data (see Figure 2).

When an individual has identified smoking as an addiction and wants to quit, preparation to resist the urge to smoke is essential. Feeling prepared to quit smoking gives the person

a sense that abstinence "can be maintained" in everyday life. Finally, the process of smoking cessation advances when the individual feels that he or she is in control of the urge to smoke and expects to continue to be in control.
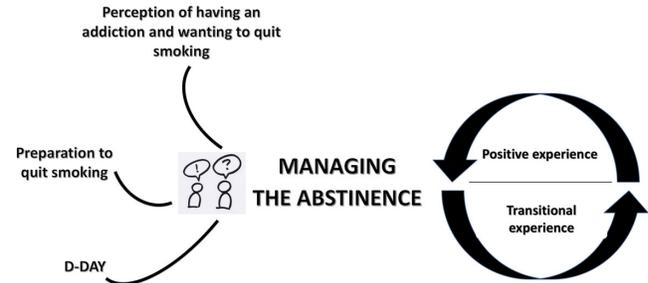
Figure 2. Controlling the urge to smoke as a central process in smoking cessation

This control, which goes beyond nicotine abstinence, is developed and strengthened by various actions suggested by the PHC professional. Being accompanied in the process by a PHC professional helps the smoker organize his or her ideas related to smoking, think about the kind of future he or she wants and how to achieve it, and plan and revise a personalized smoking cessation process. All of this helps the individual make a commitment to the decision he or she has made.

Case 1 (C1) talking with a PHC professional

PHC: Are you happy to have made this decision?

C1: Yes, I haven't smoked and besides I think for a long time something was missing, and that was being able to come here, talk to you, and get some support.

PHC: Coming here keeps you from giving up on it.

C1: Yes.

C5: Everything we were talking about, I did. Sometimes when I am working and get the urge to grab a cigarette, I try to forget about it and just keep working. And then maybe I think about it again a couple of hours later. Talking about it helps me be prepared.

The PHC professional suggests a negotiation with family and friends to establish norms about smoking. Negotiation is a support mechanism that helps smokers to not confront smoking abstinence all alone. For example, in family situations or in settings where people are smoking, it is possible to negotiate the places where smoking is allowed, ensure

that smokers agree not to offer cigarettes and perhaps even negotiate a shared quit-smoking experience. In non-smoking settings, the negotiation may include making smoking cessation a shared process with other and ensuring support at difficult times.

> C3: At home, we don't smoke at all, 24 hours a day, not in the kitchen, nowhere, and ... well, I think I told you about this, now my car is non-smoking. And he says that yes, he's going to quit too, and he will quit.
>
> C6: I have told my wife about my plan and she will help me to quit.

In addition, individuals take other actions, not suggested by the PHC professional, that also help them to control the urge to smoke and stay on track in their process.

Specifically, they must readjust the "mechanisms" of their relationships with others. They need to make a change from relationships that involve smoking to relationships that revolve around conversation, shared interests, *etc*. They must also develop and try out new strategies to withstand tension and ways to rebound from a "failure" when they smoke a cigarette or when unwanted consequences (*e.g.*, weight gain) occur. The rebound mechanism is associated with the ability to compare costs and benefits during the smoking cessation process. Smokers who can begin to visualize themselves as "nonsmokers" can see that smoking a cigarette does not mean they have relapsed; rather, it is a warning. Similarly, weight gain is a cost of not smoking but it can be counteracted. These actions were described by participants as follows:

Readjusting the "mechanisms" of their relationships with others

> C6: Sometimes we've taken our half-hour coffee break and I had an herbal tea. I have something with everybody else, we talk, and I have no problem with it. They have even offered me cigarettes and I could say no and they say how lucky I am. I don't need a cigarette to talk with them!
>
> C8: At first when I stopped smoking, life seemed so boring (chuckles). It's really odd, but I thought it was boring. Tobacco kept me company. I'd go out for supper and after coffee, a cigarette and conversation [...]. Now I've gone there in the evening and haven't smoked. The last time I went out I didn't even remember to bring cigarettes and I was having cubatas (rum) and stuff, and it was like I had never smoked in

my life. I think I'm changing. I don't need to smoke to go out with my friends.

Learning new strategies to withstand tension

> C8: When I want a smoke, I think that the urge will pass, it's just a few minutes, I know it will go away, I get a drink of water or I start reading something or I think about other things.

Rebounding from disappointment

> C5: I used to weigh a little over 90 kilos and now I weigh 92, so it's creeping up. I suppose that's normal and ... now here come the Christmas parties! In January I want to sign up for something [for weight loss]. That will be good for me.
>
> C6: I have not smoked all month. Well, yes, I had a small cigar. I belong to a group of magicians who meet Tuesday nights and at those meetings people smoke a lot. When you're talking and joking around, you have a cigarette in your hand and one guy had brought these little cigars and I lit one. That's all. Anyway, I was very clear that I want to quit and I'm not going to give up on all the effort I've made just because of one little cigar.

All of these actions are particular characteristics that appear as those who are trying to quit smoking gain confidence that they can control their urge to smoke. Nonetheless, dealing with the urge to smoke is an interpreted process with varying frequencies of different actions and achieves different outcomes. It determines the two identified patterns of smoking cessation, positive and transitional. When the individual cannot resist the urge, the quit-smoking attempt is delayed or "blocked"; a positive experience permits progress toward the desired goal of becoming a nonsmoker.

4. DISCUSSION

4.1 Main findings

This study has two findings. The first is that the model for smoking cessation in the PHC setting indicates that this is a process of learning and interpretation, in which beliefs and social context have a key role. Beliefs help the person (re)interpret and find meaning in the actions he or she takes and also vary not only as a function of the patient-health professional interaction but also depend on each individual's experiences in his or her personal environment. The belief (reinforced by the health professional) that controlling the

urge to smoke is difficult helps the individual decide to ask for help from PHC professionals. Nonetheless, beliefs have been described as "dynamic" during the quit smoking process:[33] the same belief that motivated the request for help from a health professional can be reinterpreted after the person has quit and is struggling to resist the urge to smoke, and may result in giving up the attempt to be a nonsmoker. This clearly illustrates the complexity of smoking cessation efforts.

With respect to social context, deciding to give up smoking has social impact, and at the same time this behaviour is controlled by the social context.[34] The quit-smoking trajectory follows one direction or another depending on how each individual interprets readjustments and adaptations that must be made –personally or by others, and in the environment– if the quit attempt is to succeed. Our findings coincide with other studies showing the importance of the strategies that individuals devise to withstand pressures from their surroundings[35] and the feeling of being supported by their significant others, family and friends in the attempt to remain a nonsmoker.[12, 36] Our study adds evidence that beliefs and social context are interrelated and give the individual a sense of being able –or not– to manage the urge to smoke in the long term.

The second main findings is that the smoking cessation process in the PHC setting is built upon the expert knowledge of the PHC professional, based on research and evidence-based guidelines, and smoking is approached as a health problem with signs, symptoms, and treatment.

We identified various elements that support these findings. The PHC professional used a motivational approach[37] in the first phase of the process to help the smoker reflect on his or her habit, express feelings about it, and identify obstacles to change (most often, the power of addiction and inability to control the urge to smoke). Similarly, the transtheoretical model[38] was used to organize the actions of the PHC professional during the cessation process. For example, in the initial conversations, the health professional acted in accordance with the contemplative phase, explaining the risks of smoking to help the smoker overcome the ambivalence that is characteristic of this phase. Later conversations focused on preparing to begin the behavioural changes needed (preparation phase) and then there were follow-up visits to evaluate the change process (action phase) and prevent relapse. Finally, as indicated in the clinical guidelines,[32, 39] the health professionals talked about smoking behaviour as an addiction for which the only treatment is to stop smoking, and suggested ways to reduce nicotine withdrawal, such as nicotine substitutes, drug therapy, or behavioural strategies

to avoid relapse. In this context, learning to control the urge to smoke is a central element that explains the process followed by an individual who attempts to quit smoking with the support of a PHC professional.

A consequence of this approach is that smoking cessation in the PHC setting can be described as the medicalization[40] of quit-smoking efforts, meaning that this lifestyle issue has become a health issue that must be treated by health professionals.[41, 42] Incorporating this medicalized point of view can have two consequences for smokers. On one hand, it can increase the number of smokers who perceive smoking cessation as a health-care problem that requires health professional intervention and treatment. This interpretation agrees with the findings of a systematic review by Edwards *et al.*, which point to an increasing trend toward assisted quit-smoking attempts.[13] On the other hand, medicalized smoking cessation can make the smoker reject assistance, as observed by Smith *et al.*,[43] or abandon the quit attempt because of disagreements with the health professional's approach.

Recognizing that PHC professionals have an active role in smoking cessation programs,[44] and in light of our findings, it would be helpful if PHC professionals went beyond clinical practice guidelines[12] to incorporate what has been called "living work".[45] In other words, a less structured approach that designs interventions "on the spot" with the individual patient requires subjective, relationship skills to respond to the dynamics of the smoking cessation process. We would recommend that PHC professionals build a relationship with the patient that incorporates the basic aspects of personal connection, empathy, and understanding the feelings and behaviours of the person who is trying to quit smoking. In addition to offering advice on abstinence from nicotine, the PHC professional can be a valuable companion to the entire quit-smoking process, supporting the smoker's quit plan and spending time on discussion about establishing and agreeing on objectives to be achieved. This approach can help to strengthen the abilities and resources of individuals experiencing this difficult transition.

4.2 Strengths and limitations of the study

The present study has both strengths and limitations. It shows that CCA is a useful method that explains the smoking cessation process, taking into account the individual variations in the length of time required and the interrelationship between the process and the interaction between the PHC professional and the patient. This is an important strength, given the limits of the available evidence[5, 46] and growing interest in smoking cessation.[47, 48]

Two potential study limitations should also be considered.

The data available for analysis were transcriptions of vide-orecorded sessions during office visits. Nonetheless, the data were gathered throughout the smoking cessation process, from 13 participants and 47 sessions, which provides a global perspective for analysis and comparison of differing experiences. Another potential limitation is that our analysis only included the experience of individuals who identified themselves as addicted and who were in the process of giving up their smoking habit. A comparison with the perspective of former smokers with years of abstinence could be a good complement to the present study. On the other hand, the model was tested by experts in the process of smoking cessation, who found that it was consistent with and appropriate for clinical practice.

5. CONCLUSIONS

The smoking cessation process is a learned and interpreted process that must occur in a context that reacts to individual patterns of behavioural change. It would be helpful if PHC professionals incorporated not only logic and scientific evidence but also the subjectivity of the patient's attitude, in order to better respond to the changing, complex nature of the smoking cessation process.

On the other hand, the support of a PHC professional cannot ensure that the patient will not smoke. Therefore, it is essential that reflective practice be incorporated into professional practice in order to encourage reflection about how interventions should be attempted and what theoretical models are being applied.

CONFLICTS OF INTEREST DISCLOSURE

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article. The project's funding source had no role in study design; in the collection, analysis and interpretation of data; in the writing of the report; or in the decision to submit the paper for publication.

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