Original Article

Experiences of adult smokers from the concepts of smoking: A content analysis

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Abstract

Background: Smoking cigarettes is a risk factor for many physical and mental diseases. About five million people die of smoking every year. Understanding the concept of cigarette smoking can help people develop their knowledge with regard to smoking. A qualitative research seems essential to detect these concepts. Therefore, the present study aims to take into account the experience of adult smokers with regard to the concept of smoking.

Materials and Methods: This is a qualitative content analysis study conducted on 12 smokers in four selected cities in Iran. Data were collected by in-depth, semi-structured interviews, transcribed verbatim, and simultaneously coded. Subsequently, they were analyzed using the content analysis method.

Results: In the present study, eight concepts (themes), 22 subcategories, and 81 codes have emerged. The obtained concepts are physics of a cigarette, addiction and dependency, habit, feel the need, pleasure, seeking peace, mental involvement, and self-induction.

Conclusions: The participants' experiences with regard to cigarette smoking can affect their understanding of the concepts of smoking. The understanding of these concepts by nurses and smokers can enhance their knowledge about the existing facts of smoking, which can act as a foundation for designing preventive methods and smoking cessation programs.

Key words: Iran, qualitative research, smoking, tobacco use

Introduction

Cigarettes cause five million deaths in a year around the world. Cigarette smoking is one of the most significant causes of early death.[1] About 16% of the men's mortality and 7% of women's mortality is considered to be associated with cigarettes.[2] Cigarette smoking is a risk factor for coronary artery diseases,[3] renal failure,[4] cancers, and pulmonary diseases.[5-7] It is associated with still birth, low fetal growth, pediatric cancers, infant sudden death syndrome, and reduced natural fertility.[8]

About 25% of the people smoke worldwide.[9] Although smoking has decreased in the US, it has an ascending trend in some developing countries and in some specific populations, including women.[10] The World Health Organization (WHO) reports show that the geography of cigarette smoking has shifted from developed countries to developing countries and the problem in Asia has become worse.[11] In Iran, although the prevalence of smoking has been reported differently in various people and cities, the WHO has reported a prevalence of 20.4% in men, 1% in women, and 10.8% in the entire population.[12]

Detection of how younger people understand cigarette smoking is a crucial need. Also the thinking processes existing prior to the start of smoking and during consumption of cigarettes must be studied and investigated.[13] If the concepts related to the health phenomena are understood well, they can help more effectively in the provision of healthcare to people. Concepts provide a higher level of understanding and recognition in relation to the provision of treatment and care programs, and increase the nurses' skills and power in the prevention of smoking and cigarette cessation programs.[14]

The current strategies to measure the perception of smoking risk are in numeric estimations and cannot adequately measure the individuals' feelings and thoughts with regard to measurement of the smoking risk.[15] A qualitative

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research can yield a definite percept of the feel of real cigarette smoking among smokers.[16] A qualitative research will enhance the understanding of the scientists of health science on smoking and enable them to use their knowledge when working with their clients, when giving healthcare, and in general fields of smoking control.[17] Bredie's findings showed that a motivational and in-depth interview is much more effective for smoking cessation, when compared with the usual recommendations given by physicians and nurses.[18] Smoking has been frequently studied through qualitative researches by nursing scientists,[17] but there are few studies on the explanation and development of the smoking concept. Chang (2004), in a study to develop the concept of 'smoking temptation,' conducted five semi-structured interviews, with five adult smokers, and obtained five concepts — 'reaction to situational stimulants', 'avoiding the low prestige of smoking,' 'nicotine dependency,' 'habitual behavior,' and 'loss of control'.[19] In another qualitative content analysis study, children have described smoking as a type of addiction, habit or behavior, which cannot be stopped. They believe that the nature of this addiction has not been well detected. They believe that addiction to cigarette is the negative outcome of smoking behavior. They deeply believe that cigarette is hazardous to health and have expressed that it acts as a sort of trap (being involved in it. with no control). None of the children believe that escape from this is easy.[13]

Given the importance of concepts in the developing of knowledge, and the role of knowledge in reducing the incidence and prevalence of smoking, as also the low number of studies on the concepts of cigarettes and dependency of smoking as per the culture of the people,[20,21] the present study aims to detect the smokers' experience from cigarette smoking in the Iranian culture.

Materials and Methods

The present study was conducted through a conventional content analysis. The goal of the conventional content analysis was description of the phenomenon, which could be employed when the resources about a phenomenon were low. In the content analysis method, the code categories were directly extracted from the interview transcripts.[22]

The participants comprised of 12 smokers. Of these, eight were male and four were female. Their ages ranged from 21 to 51 years and their education varied from primary school to a Bachelors degree. With regard to their occupation, two were homemakers, four were workers, four were employees, one was a university student, and one was self-employed. Seven participants resided in Tabriz, two in Tehran, two in Ilam, and one in Boushehr. The Fagestrom test for nicotine dependency was adopted in the present study. This test had six questions, including smoking the first cigarette after waking up (within five minutes = 3, 6-30 minutes = 2, 31-60 minutes = 1, and after 60 minutes = 0), smoking in forbidden places (yes = 1, no = 0), ignoring the first cigarette in the morning (difficult = 1, not difficult = 0), number of cigarettes (31 or more = 3, 21-30 = 2, 11-20 = 1, and 10 or less = 0), number of cigarettes smoked in the morning compared to prior days (more = 2, equal or less = 1), and suffering from a severe disease, with long hours of bed rest during the day (yes = 1, No = 0). The range of scores in this test was 1-11. Scores 1-6 depicted a slight-to-moderate smoker and 7-11 depicted a heavy smoker.[23] In the present study, the participants' mean Fagestrom score was 8.33.

The participants in Tabriz were selected from smokers who were acquainted with the researcher. Some other persons were used to facilitate the selection of participants in other cities in Iran. These people selected the participants by talking with their acquaintances, who were smokers, introduced the researcher to them, and conducted the background check for the interviews. The interviews with the participants were conducted in public gardens of the city, their working place, the researcher's office, the participants' houses or the researcher's house. Twelve interviews were done with 10 participants (two participants underwent two interviews). Two participants wrote out their smoking experience as a scenario and handed it to the researcher. After eight interviews, the researcher attained relative saturation of the data and conducted the remaining four interviews to achieve maximum data saturation. All interviews were conducted in 2012.

The participants underwent deep and semi-structured interviews. At the beginning of the interviews, the research goals and method were explained to the participants. The interviews started with some general questions. The question asked of the smokers was, "Why did you start smoking?' please tell your story of smoking from the first day to the present.". During the interview, the participants' convenience was attended to and at any stage of the interview, whenever the interviewee was tired, the interview would be stopped and restarted after a couple of minutes. The interviews lasted at the most for one hour, and if the participants' story did not end within one hour, another interview was arranged.

To reach a level of trust with regard to the credibility of the participants, the researcher had a long and close acquaintance with the participants (for two years). The researcher was born in a smoking family and had lived with a smoker for years, had research projects, and needed working experience in the context of smoking. In addition, during the interviews, the interviews were not only recorded, but also listened to, and thereafter, transcribed

verbatim. The transcripts and scenarios were reviewed and defined. The content unit, meaning unit, meaning condensed unit, and that were abstracted and labeled with a code. Interviews, transcripts, and scenarios, including the extracted codes, were given to the participants, and were confirmed by them. The consistency of the codes, with the categories and concepts, was checked and confirmed by two colleagues, who were experts at qualitative research. With regard to the dependability, the interviews transcripts were handed to the researcher's coworker, and after he coded the transcripts. The consistency of the codes was checked and confirmed. For confirmability of the study, the sampling mode, question development and interview tool, the method of coding, and category extraction and modification were recorded and documented. To achieve utmost transferability, the participants were selected from a vast spectrum (men, women, young, old, and light and heavy smokers, from various locations in Iran). The findings of the study were handed to a non-participant smoker and their truthfulness and consistency were confirmed by him, in comparison with his own experiences.

This project was approved by the Ethics Committee of Research and Technology Vice-Chancellor of the Tabriz University of Medical Sciences. The participants attended the research through their own interest and a written consent was signed by them before the interviews.

Results

In the present study, 81 codes in 22 subcategories and eight themes were attained. The themes that emerged were physics of a cigarette, addiction and dependency, habit, feel the need, pleasure, seeking peace, mental involvement, and self-induction [Table 1].

Physics of a cigarette

Based on the participants' experiences, cigarette as an object is a rolled piece of paper, 5-6 cm in length, which is filled with tobacco, with a filter at one end. This object is lit by putting a flame on one end (the one with no filter) and sucking the air in through the other end (with the filter) with the help of the lips and mouth. The smoke that results from it is inhaled into the lungs through the throat. The cigarette may be held directly by the lips or a cigarette holder. Based on the participants' experiences, cigarettes are of different qualities and are defined by the nicotine or tar in it. Low-quality cigarettes have high nicotine and tar and their taste is bitter and unfavorable. They smell very bad, are cheap, and give a big flame, with a lot of smoke. After smoking, their filter gets darker in color and dirty compared to quality cigarettes (with low nicotine and tar). Low-quality cigarettes result in severe reactions, even in formal smokers, and cause cough and burning throat. There are different types of cigarettes in the market depending on the type of tobacco, level of tar and nicotine, with or without a filter, and also the type of a filter, with or without flavor, and also the type of flavor, the different manufacturers, and their designs. Participant number six states:

> *"Cigarettes are different, their nicotine and tar are different. For example, the nicotine in a cigarette may be one unit, and in another, it may be 0.3 or 0.4 unit. Some cigarettes like.... are very heavy so that after smoking, their end gets black. But, when you smoke filter plus cigarettes, although their nicotine is higher, you never feel you are smoking, as their tar is low"*

Addiction and dependency

Some participants clearly mentioned that smoking is an addiction that makes the smokers dependent on cigarettes. After nicotine enters their body, the dependency gradually increases through time. Participant number four states:

> *"After cigarette (nicotine) entered your body, its consumption gradually increases. I don't know if it is due to its morphine or something! It is its property. When I have no cigarette, I feel I have lost something; I cannot tolerate it at all. I miss it to death."*

Meanwhile, most of the participants avoided using the word 'addiction' for smoking and somehow tried to distinguish smoking from addiction. They used the word 'dependency' more and defined it as a high craving for a cigarette. The most important property of dependency was the smoker's lack of self-control. These participants were heavy smokers and smoked continuously during the interview. They manifested this behavior due to lack of nicotine and it was more like the behavior of drug abusers toward morphine. Their behavior was such that if they did not smoke for one day, they got a craving for it, and were mentally disturbed. At this point in time, they were restless and confused. Based on the participants' experiences, dependency referred to that point when the smokers could not smoke, and missed it, and were automatically driven to it. Dependency meant that the smokers liked to smoke when they saw another person smoke, or when there was a pack of cigarettes in front of them and they could not resist the temptation. Dependency meant doing anything for a cigarette when there were none around. It meant getting confused, irritable, aggressive, restless, and not having good sleep if there was no cigarette. It meant buying a cigarette even if it meant a lot of trouble or going out at midnight to distant places to get one. It meant an internal craving for a cigarette. It was a sort of total commitment for the smoker. It meant smoking despite hating it and being a slave to it. It was such that there was no escape for a smoker and he/she accepted any hazard or damage it caused. Female participant, number 11, states:

Table 1: Themes, subcategories, and smoking codes

Theme	Subcategory	Codes
Cigarette physics	Size	Length and diameter of a cigarette
	Structure	Type of filter, paper, and tobacco
	Cigarette quality	Quality indexes: Levels of tar and nicotine
		Quality signs: Taste, smell, amount of smoke, level of fire, level of dirtiness of the filter, physical effects
	Cigarette variation	Having or not having a filter, type of filter, having or not having any flavor, type of flavor, type of tobacco, lightness or heaviness of cigarette, cigarette brands
Addiction and dependency	Mental signs	Severe depression causing one to smoke, severe eagerness for a cigarette, no resistance against a cigarette, being committed to smoke, being a slave of smoking, smoking despite hating it
	Behavioral signs	Restlessness, confusion, buying a cigarette for any price and with great trouble, picking up a cigarette from the ground, relighting a used cigarette, craving to smoke
Habit	Habit indexes	Unintentional smoking behavior, power of the behavior
	Speed of the habit	Low, gradual, high
	Focus of habit	Hand, lips, mental
	Factors distinguishing a habit from addiction	Cigarette: Smoking at any time, smoking anywhere, smoking in front of most people, not using any tool to smoke
Feel the need	Stages of the need to smoke	Lowered body nicotine, an internal request for a cigarette, craving for a cigarette, intense interest to smoking eating cigarettes (smoking cigarettes), being sated with cigarettes, starting a repeat cycle of smoking
	Increase in need	Need for low-nicotine cigarette at the beginning, need for high-nicotine cigarette in the later stages, no response of the body to low-nicotine cigarettes after increasing the need of body to high level of nicotine
Pleasure	Signs	Feeling of happiness, feeling of satisfaction, a sort of internal happiness
	Conditions of getting pleasure	Intentionally consumption, no habitual consumption
	Time of getting pleasure	Pleasure only during consumption, pleasure until 30 minutes after a meal or a cup of tea
	Pleasure situations	After a cup of tea, after a meal, especially rich foods, during and after sports and physical activities, in happy and joyful situations
Seeking peace	Time of seeking peace	During periods of sadness, discomfort, concern, anxiety, and stress
	Smoking outcome	Peace, being carefree, mental relaxation, physical relaxation (a type of numbing)
Mental involvement	Signs	Mental concern, mental engagement, lack of mental concentration
	Stimulant	Start of smoking, continuation of smoking, cessation
Self-induction	Signs	Making an excuse, self-convincing, making reasons
	Cases for self-induction	Sadness, happiness, concern

"I like someone would separate this hell (cigarette) from me. I swear to God to kiss his/her feet. I remember one night, I ran out of cigarettes. It was 1 AM, I got dressed and went out to buy cigarette. In my town (Ilam), nobody leaves home that time of night, but I did that for cigarette. Now everywhere I go, I should firstly have my pack with me. If I have half a pack, I feel it is not adequate, it may finish. I go and buy another pack. We had no money to spend, I broke the charity box and got the money to buy cigarettes!"

Habit

Based on the participants' experiences, the habit of smoking occurs when the smoker lights a cigarette and smokes it, but is unaware of it, similar to breathing, which is a habit and is done without thinking or intention. Smoking is a habit that needs no thinking or hesitation. The participants believe that a habit is a very strong behavior, which overcomes the smokers' intention in such a manner that stopping this habit is not easy. Smoking changes to a habit shortly after starting it. With an increase in the number of cigarettes, the smoker gets used to the new number; therefore, a reduction in the number of cigarettes is very difficult. Participant number one states:

"When I drive, unintentionally my hand picks up a stick. I say this is the habit of the hand. To hate cigarettes, I left them in water for a couple of days. After they were decayed, I put them in my pocket to be disgusted with its bad smell and quit. I quitted for a month, and then, started again. What a strange habit!"

Comparing themselves with drug abusers, the participants who had experienced smoking as a habit believed that it

was different from addiction to drugs. They believed that if smokers did not smoke, they did not face a huge problem and could tolerate a delay in smoking for a couple of hours, while drug abusers displayed more severe signs of substance dependency even one hour after not using the drugs and their behavior got out of control. Participant number three states:
"Smoking does not kill one. For example, if I promise not to smoke, it is not like drugs that if the drug abusers do not take, they die. Cigarettes have nothing in, just you may miss it after one or two days, and like to smoke."

However, the participants who believed smoking was a habit described that it was worse than drugs, as taking drugs needed the essential tools, which were not necessary for smoking. For instance, drug abusers prepared drugs illegally and could not prepare them in any shop in the town. They had to seek a safe place and needed specific equipment. All these necessary tools limit drug abuse, while in smoking, none of these limitations were present, and hence, the smokers smoked more freely.

Feel the need

Some participants believed that a cigarette was essential for a smokers' body, similar to food, and smoking was a behavior to fulfill this need. Based on their experiences, high-nicotine cigarettes fulfilled the need of the body for nicotine, and the smoker was not interested in further cigarettes after smoking high-nicotine cigarettes. The body adapted to a higher level of nicotine through an increase in the number of cigarettes in such way that if there was a shortage of nicotine, the smokers increased the number of cigarettes and had stronger puffs to compensate their need for nicotine.

On the contrary, a person whose body is used to a lower amount of nicotine has less demand for cigarettes. Participant number seven states:

"Like when we are hungry and go for food, the same condition is for cigarettes. The body likes a cigarette. The cigarettes with high nicotine compensate the shortage of nicotine in the body, and the smoker is not interested in smoking for a while."

Pleasure

A high number of participants believed smoking was for pleasure. They claimed that they smoked for pleasure and unavailability of the cigarettes equaled missing that pleasure. Based on their experiences, the pleasure of smoking was when one was informed and smoked, and through a puff, was drawn into his/her dreams, and then, gradually he/she released the smoke. They believed that pleasure was the cause of the habit and smoking as a habit was not a pleasure, but a disgusting experience. Participant number two states:
"I hate smoking as a habit, of course, I myself have lit a cigarette as a habit and smoked, but whenever I noticed the cigarette I am smoking is due to a habit, I hated smoking and threw away the cigarette and smashed it. I smoke just for pleasure."

Participant number three disagreed with the asbove-mentioned concept of pleasure and smoking habit caused by the cigarette and stated:

'I have found no pleasure in smoking although I have seen some people claiming that. However, I have found no pleasure. For me, it is a habit.'

Based on the participants' experiences, the pleasure of a cigarette is in smoking it, and after that, there is no pleasure, but disgust for its bad smell and taste. Almost all the participants mentioned that smoking is very pleasant after drinking a cup of tea and after a meal, especially rich foods, broth, and kebab with rice.

Seeking peace

Most of the participants stated that whenever they were sad or disappointed, they smoked and got peace. Smoking protected them against stress and they de-stressed themselves through smoking. Some other participants counted on the cigarette as a shelter, to take refuge in whenever they felt sad, in order to get peace. Most of the participants considered a cigarette to be their friend in happiness and sorrow. Participant number three states:

'To my viewpoint, a cigarette is a palliative, sort of a shelter, as whenever I am sad I refuge to, whenever I am happy, I again refuge to. For this reason, it is a support for me.'

Mental involvement

Some participants believed smoking is a mental disease, wherein, smoking, by itself, turned into a mental involvement. Subsequently, the individuals' curiosity was roused to test smoking, and through testing it and its continuation, one tried to resolve this mental involvement. Participant number three states:

"Something seems to engage your mind, it engages your thought. Something seems to enter your mind and make wheeze, when I smoke a cigarette, it is relieved."

These participants also believe that such mental involvement plays a role in starting, continuing, and quitting smoking in such a manner that if this involvement is not resolved, cessation is impossible. Participant number eight states:

"I guess, I have tried to quit 4-5 times. Once I dropped the cigarette and promised not to smoke again, but the cigarette had no sooner touched the ground, I felt I was making a mistake, before three days completed, I started again. I myself knew, I would start that again as I had not solved the problem in my mind."

Self-induction

Some participants believed smoking was dependent on situations and self-induction. They indicated that the temptation for smoking rose in a specific situation. In their view, all concepts of smoking were not real, but they are a sort of self-induced. Participant number three states:

'It is our self-induction. I talk about myself. I have inducted that myself. I smoke as I am so sad., In fact, I smoke a lot when even I am happy. For example, in a wedding party, it is a happy time, but I again smoke a lot. I think it is a sort of self- induction.'

This participant defines the word 'self-induction' as a condition when a person is in one of the above-mentioned situations, he/she smokes. The reason is he/she has associated his/her smoking with these situations. Now, if he/she is in the same situation, but cannot smoke, or he/she is aware of the role of self-induction in such a situation, or he/she eats a special food, which has been associated with that situation, and instead of smoking a cigarette, the person avoids smoking. Participant number eight, who had successfully quit, mentioned the importance of self-induction in smoking and stated that:

'If someone says the cessation makes no problem for me and I will quit that, this is a self-induction and facilitates cessation. On the contrary, if he/she says, I fear of smoking again, for sure, he/she will smoke again. I kept saying I never smoke. In a day, I repeated I hate cigarettes; I hate cigarettes for ten times. I repeated this phrase continuously until I actually hated cigarettes.'

Discussion

In the present study, eight major themes emerged based on the participants' experiences. The findings of the present study showed that cigarettes were available in various types in the market. This was the trick of cigarette-making factories to attract new customers and maintain the loyal ones.

There are evidences to show that the cigarette-making industry targets the young generation and employs various methods (like making flavored cigarettes) to sell its products to them.[11] Control of the amount of tar and nicotine in cigarettes is another factor that causes a variety of tastes in cigarettes, such as, light or very light cigarettes. The cigarette industry claims that light and very light cigarettes are not hazardous, as their tar and nicotine are controlled; however, the fact is that these cigarettes are as hazardous to people's health as common cigarettes. The findings of the present study show that those who smoke low-nicotine cigarettes have to increase the number of cigarettes or puff more deeply during smoking, to compensate the nicotine needed by their body, which is consistent with the findings of Frieden (2005).[10]

The findings of the present study show that the participants' experiences from their smoking concepts are not similar. This may be due to the fact that smokers have no good recollection of their smoking from their early stages of smoking. They understand these concepts more over time and by acquiring more experience from smoking. For instance, understanding the concept of addiction to cigarettes is difficult for someone who is not yet at the stage of dependency. In the present study, addiction to cigarettes is the most extensive and important concept to which the participants point, with different remarks. Although almost all the participants have experienced the addictive nature of cigarettes, they have used the word 'addiction' rarely. This shows that addiction is not acceptable as normal behavior in the Iranian culture. Being against the norm and its fear are strong points to prevent smoking. Children who believe that smoking is followed by addiction are never interested in smoking. Meanwhile, those who believe they can smoke without being addicted like to experience smoking.[13]

The other important concepts that emerged from the present study were pleasure and reaching peace through smoking. These concepts were also reported by Pletcher,[24] Harwood,[25] Patkar,[26] Gilbert,[27] and Shadel.[28] Despite the findings of the present study and the above- mentioned studies, it seemed that nurses and health sciences experts did not react properly and disregarded the apparent advantages of cigarettes. The fact was that denial of the positive characteristics of cigarettes did not change the fact and made the smokers guard against preventive and cessation programs, as they found the experts' claims contrary to their own experiences and believed more in their own experiences. Therefore, nurses and other experts in the domain of health were told not to disregard the apparent positive characteristics of smoking, but confirm them, until they tried to provoke the public realistically, and by doing this, they could explain to them that the peace they acquired by smoking was temporary and what really happened in the long term to the body was that it lowered the body's ability and caused development of various diseases. Long-term smoking was not relaxing, but increased mental disorders like anxiety, fear, and panic.[25]

Another concept that emerged in the present study was interpretation of smoking behavior as a disease or mental involvement. Mahabee (2013), stated that smoking was

a childrens' disease, as the the highest dependency on cigarette in adults occurred before the age of 18.[29] The advantage of considering smoking behavior as a disease was accepting that the disease could be the initial step for treatment, and this issue was of great importance for the smokers. The physicians' and nurses' recommendation to quit smoking was a major step toward smoking cessation. Research showed that physicians' and nurses' recommendation, even if conducted for less than five minutes, increased the cessation level three-fold.[26]

Self-induction was another concept that emerged. This concept showed that smoking should be considered as something more than dependency to drugs, and self-induction to smoke in specific situations should not be ignored. Smokers' awareness of such an induction may play a valuable role in theprevention or cessation of smoking. In a study, the researchers noticed that adolescents who succeeded in cessation had significantly higher knowledge, compared to those who did not.[23]

In summary, a better understanding of smoking concepts by nurses and smokers can be effective for smoking prevention and cessation. Therefore, to prevent and treat smoking, we must know these concepts well and target smokers and adolescents with extensive knowledge.

Research limitations: We had to select the participants from persons we were acquainted with, due to lack of preparedness of strangers to undergo interviews and voice recordings. In any case, we tried to select those acquainted persons who varied in their occupation, education, age, and level of dependency to smoking.

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