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Informing Smokers about the Dangers of Tobacco**

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## Effectiveness of Cigarette Graphic Warnings in Informing Smokers about the Dangers of Tobacco

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### Abstract

**Purpose:** Pictorial cigarette pack warnings are a promising solution for curbing the tobacco epidemic and are considered as one of the most direct, effective and prominent means of communicating with smokers. Over 8,300 Cameroonians are killed by smoking-caused diseases every year with 112 men and 47 women dying every week because of smoking. In a country where 2.3 billion cigarettes were sold in 2016, this study seeks to find out how effective cigarette warning labels are in influencing smokers' intake of cigarette. We sought to assess the effectiveness of cigarette warning labels, to determine if smokers' belief and trust the graphics on cigarette warning labels and if they are directly or indirectly influenced by cigarette warning labels.

**Methodology:** This study adopted a qualitative research design in order to better understand and illuminate the Effectiveness of Cigarette Warning Labels to smokers. A purposive sample of eighteen (18) cigarette smokers were interviewed using a formally structured and semi-structure interview protocol. Colaizzi's 1978 phenomenological method was used in analyzing the transcripts.

**Findings:** Our findings point to the fact that there is perceived ineffectiveness of cigarette warning labels, that cigarette smokers don't believe the warning labels are real and there exist a limited influence of cigarette warning labels to smokers. The analysis of our data led to the emergence of three distinct themes: Perceived ineffectiveness of warning labels; Lack of belief in warning labels; Limited influence of cigarette warning labels to smokers.

**Unique Contribution to Theory, Practice and Policy:** This study was informed by the Trans theoretical Model (TTM) which focuses on the decision-making of smokers and is a model of intentional change. It was observed that smokers may not change their habits quickly and decisively only because of cigarette graphic warnings. Other communication channels especially the media may reinforce cigarette graphic warnings to persuade smokers to quit smoking. This study has implications for programs aimed at reducing the rate of cigarette smoking. Based on the findings, the warning labels appear not be very effective in persuading smokers to quit the deadly practice of smoking.

**Keywords:** *Cigarette Smoking, Graphic Warnings, Tobacco.*

## 1.0 INTRODUCTION

Health warnings on the packages of cigarettes are considered as one of the most direct, effective and prominent means of communicating with smokers (Hammond, 2011). These larger pictorial warnings are usually more effective compared to text-only messages because they are very captivating and very graphic to emphasize the dangers of tobacco. Worldwide, tobacco use causes more than 7 million deaths per year and if the pattern of smoking all over the globe doesn't change, more than 8 million people a year will die from diseases related to tobacco use by 2030 (CDC, 2022). In Cameroon, through observation, most smokers acknowledge the fact that cigarette smoking is a health risk although it is unclear the extent to which they understand the health risks. The World Health Organization has identified cigarette smoking as one of the leading causes of death and disability in the world. To date, more than 24 different smoking-related diseases have been identified, including cardiovascular disease, respiratory disease and 10 different forms of cancer (WHO, 2017).

According to the Global Adult Tobacco Survey (2013), 8.9 percent of adults (age 15+) in Cameroon use tobacco products with a higher rate among men than among women, 13.9 percent of men and 4.3 percent for women. Following the Global Burden of Disease (2013), every year, 8,300 Cameroonians are killed by smoking-caused diseases although fewer men in Cameroon die than in other middle-income countries like Mauritius, Namibia, Botswana and Equatorial Guinea. Nevertheless, 112 men and 47 women die every week because of smoking in a country where over 2.3 billion cigarettes were sold in 2016 (Euromonitor International, 2017). Cameroon ratified the WHO Framework Convention on Tobacco Control on February 3, 2006. The treaty went into effect on May 4, 2006.

### Statement of the Problem

According to Hammond, McNeill, Borland and Cummings (2006), in virtually all countries, cigarette packages carry warning labels written in diverse ways. However, the effectiveness of cigarette warning labels in informing smokers about the dangers of smoking is unclear in Cameroon. In addition, the government of Cameroon through the Ministry of Public Health in collaboration with international bodies like the World Health Organization, are spending time and resources to reduce the intake of cigarette in the country through warning labels on the packs of cigarettes. In spite of these efforts, the intake of cigarette has not witnessed a significant drop. The consumption of tobacco is still at an alarming rate. In essence, this study seeks to find out how effective these cigarette warning labels are in influencing the reduction of smokers' intake of cigarette.

### Research Questions

*RQ 1: How effective are cigarette warning labels to smokers?*

*RQ 2: Do smokers believe and trust the graphics and words on cigarette warning labels?*

*RQ 3: Are cigarette smokers influenced by cigarette warning labels?*

### Specific Objective

- To assess the effectiveness of cigarette warning labels on smokers.
- To determine if smokers' belief and trust the graphics and words on cigarette warning labels
- To find out if cigarette smokers are influenced by cigarette warning labels

## 2.0 LITERATURE REVIEW

Communicating the health effects of smoking remains a primary goal of tobacco control policy (CDC, 2022). Health warnings on cigarette packages are among the most common means of communicating the health risks of smoking. According to the Health Canada Baseline Survey (2001), majority of smokers approached reported that package warning labels are an important source of health information because it increases the awareness and risk of smoking. There is a likelihood that many

smokers in Cameroon may smoke for a single week without noticing the warning labels or simply because they do not buy their cigarettes in packs. Many smokers continue to buy sticks of cigarettes from small provision stores or from hawkers. It is worthy to note that this set of smokers is very likely to miss out on essential warnings on the packs of cigarettes warning about the dangers of tobacco.

A study carried out in Australia revealed that relative to non-smokers, smokers revealed that they were more knowledgeable about the constituents of tobacco smoke and identified significantly more disease groups following the introduction of new Australian warning labels in 1995 (Borland, 1997). Without doubt, warning labels especially the very recent graphic labels on cigarette packs are very captivating to influence the smoking habits of smokers. With very frightening graphics of smokers who have contracted diseases is to push smokers to quit cigarette smoking. However, despite the knowledge demonstrated by many smokers, the rate of smoking has not dropped.

Educating the population about health risk is a key priority by the government of Cameroon. The inclusion of warning labels on cigarette packs is one method by which the government educates smokers about the health risks of smoking (Hammond, 2011). Previous studies on cigarette warning labels have compared effects of pictorial and textual warning labels.

A 2006 study carried out by Hammond et al., (2006) on the effectiveness of these label warnings, found that frequent smokers (> 16 cigarettes per day on average) in Canada were almost twice as likely as their US counterparts to report noticing information about the dangers of smoking from cigarette packages, with over 53% of US smokers failing to report noticing the warning very often in the last 6 months. Importantly, the study also found that noticing warning on cigarette packages was positively associated with knowledge of the health risk involve in smoking, even after adjusting for noticing anti-smoking messages in other media. Text-only warnings have since had their limitations in informing smokers of health effects compared to pictorial warnings which are superior in the sense that they are emotion-arousing (Cameron, Pepper and Brewer, 2015).

According to Noar, Hall, Francis, et al. (2016), experimental studies show that compared to text-only warnings, pictorial warnings are more effective at attracting attention, eliciting stronger cognitive and emotional reactions, and increasing the motivation and intentions to not start or to quit smoking. The health risks of smoking are also the most common motivation to quit cited by current and former smokers, as well as the best predictor of long-term abstinence among reasons for quitting. At present, most smokers concede that tobacco use is a health risk. However, important gaps remain in their understanding of health risks and considering the importance of health warnings among tobacco control policies, there is a need for additional research.

## **Theoretical Review**

### **Transtheoretical model (TTM)**

Transtheoretical model is one of the most commonly used methods in behavioral change modeling. It states that changing a behavior is not a coincidence but instead is a process and different people are in different stages of change (SC) and readiness (Hashemzadeh, Rahimi, Zare-Farashbandi, Alavi-Naeini & Daei, 2019). The TTM posits that individuals move through six stages of change: precontemplation, contemplation, preparation, action, maintenance, and termination. Termination was not part of the original model and is less often used in application of stages of change for health-related behaviors. For each stage of change, different intervention strategies are most effective at moving the person to the next stage of change and subsequently through the model to maintenance, the ideal stage of behavior (Hashemzadeh et al., 2019). The TTM is not a theory but a model; different behavioral theories and constructs can be applied to various stages of the model where they may be most effective.

### **3.0 METHODOLOGY**

#### **Research Design**

The study adopted a qualitative research design in order to better understand and illuminate the Effectiveness of Cigarette Warning Labels to smokers. By this, interviews were conducted to the defined population in order to gain better insight on how the Effectiveness of Cigarette Warning Labels in informing smokers about the risk of smoking.

#### **Sample Size**

A purposive sample of eighteen (18) cigarette smokers were interviewed with participants who met the inclusion criteria. Inclusions criteria involved (a) Be a cigarette smoker, (b) be aged 18 years and above (c) able to communicate in English and or Pidgin English.

#### **Instruments**

A formally structured and semi-structure interview protocol was developed. The formally structured portion involved prepared questions, allowing for consistency across groups. The semi-structured portion of the interviews allowed the participants to speak freely, elaborate, ask questions and join in group discussions. This approach permitted the researcher to gain access to the fundamentals of the group of respondents from the insider's perspective (Fetterman, 1989).

#### **Qualitative Analysis**

Colaizzi's 1978 phenomenological method was used in analyzing the interview transcripts. In this method, all written transcripts were read several times to obtain an overall feeling for them. From each transcript phrases or sentences that pertain directly to the lived experience of the pregnant and postpartum women who met the inclusion criteria were identified. These codes emerged naturally from the data. Meanings were then formulated from the significant statements and phrases. The formulated meanings were later clustered into themes allowing for the emergence of themes common to all the focus group transcripts. The results were then integrated into an in-depth, exhaustive description of the phenomenon. For confidentiality, participants' names have been replaced with letters.

#### **Ethical Considerations**

Regardless of the approach to qualitative inquiry, a qualitative researcher faces many ethical issues that surface during data collection in the field and in analysis and dissemination of qualitative reports (Creswell, 2017). The researcher did everything possible to protect the identities of the respondents, for example, by assigning numbers or aliases to individual comments.

### **4.0 FINDINGS**

The participants interviewed shared their experiences on smoking and how they view pictorial warnings on cigarette packs. In recent years, the government of Cameroon in line with other governments has ensured that the graphics are bigger which was acknowledged by the participants we interviewed. They shared quite different perspective on their views about the effectiveness of cigarette warning labels in informing smokers about the risk of smoking. The participants mostly agreed on the fact that smoking was a very dangerous way of life but their views varied on the effectiveness of the warning labels in informing them about the risk of smoking. It is generally assumed that smokers are well aware of the health risks associated with smoking which is the case in our study but there appears to be significant gaps in their knowledge about the risks of smoking. The analysis of our raw data led to the emergence of three distinct themes: Theme One: Perceived ineffectiveness of warning labels; Theme two: Lack of belief in warning labels; Theme three: Limited influence of cigarette warning labels to smokers.

### **Theme One: Perceived Ineffectiveness of Cigarette Warning Labels**

Our respondents generally intimated that the cigarette warning labels were not very effective in scaring them or enhancing their intention to quit cigarette smoking. They mostly described the label as not very scary or not sufficient enough to grab their attention before the smoke the cigarette. This may be discernable because of the fact that in Cameroon many who smoke cigarette are poor and usually don't or can't afford the whole pack of cigarette at once. So they may be heavy smokers who smoke for a month and will not view any pectoral label because he or she buys the sticks of cigarette with the pack which has a warning label attached to it. Nevertheless, our participant all knew about warning labels as it is unlikely for someone to smoke for over a month without viewing a label. Most smokers have the general awareness that smoking is harmful but considering the responses from our participants, they are not very effective in warning them about the dangers of cigarette smoking as evident in the following quotes below:

*B: "They are not effective because many of us are still in it and many others are joining us every day".*

*J: "I do not think it is really effective because many people are still getting into smoking despite the scary warning labels."*

*I: "I will say no, they are not effective due to the fact that people [see] scary images and information and they are still involving in the act of smoking and many people are joining us."*

*E: "No, they are not effective because there are many people out there who still take cigarette without taking in to consideration the cigarette warning labels on the packages".*

Besides stating that the warning labels were not quite effective in scaring smokers, there were respondents who stated specifically if old smokers continue to smoke without ceasing and they are new smokers every day, it is for the simple reason that the warning labels are not effective. Some of the respondents went on to justify why they think the warning labels are not effective as seen the in quotes below:

*E: "No, they are not effective because there are many people out there who still take cigarette without taking in to consideration the cigarette warning labels on the packages."*

*D: "They are not effective because some of us are not willing to stop smoking"*

*C: "To me it is not very effective. This because many people are still joining the train."*

*F: "Cigarette warning labels are not effective because many are still involved in smoking."*

In line with our first theme, some respondents went on to rate the level of effectiveness of warning labels after stating that they were not very effective. Below are typical responses which fall into this category:

*B: "It can be 3% effective because many of us are not willing to respect the warning labels".*

*I: "The effective rates of cigarette warning labels are very low."*

*H: "To me, the cigarette warning label effect is very low"*

*G: "The effective rate is very low"*

*F: "The rate of effectiveness of cigarette warning label is very low."*

Among the respondents who volunteered to take part in this study, there were participants who considered the cigarette warning labels effective. They intimated that the warnings were visible and frightful enough to persuade a smoker to quit smoking. Some of such responses included the following:

*J: "The warning labels are effective to me because the messages and images on the packages are so frightful."*

*A: "It is very effective due to the fact that there is a deathly image on the package."*

*A: "To me it [cigarette warning labels] are effective because at first, the warning labels were not there especially when I started smoking and seeing now is scaring me a lot as I discovered the warning labels later".*

The researcher went further to probe the smokers on possible suggestion to improve the effectiveness of cigarette warning labels. Some of our respondents were clear on the fact that the warning labels have not been effective and it was time for the government to work with tobacco companies so they can come up with more effective and scary cigarette warning labels. The following quotes are typical responses:

*E: "Yes I think that the government in collaboration with the cigarette production company (CICAM) should reinforce the warning labels on the packages".*

*D: "I think the government should put more realistic images and messages rather than frightening us with these messages."*

One respondent seemed frustrated about the need for warning labels when the government has powers to take a product off the market if it believes it is harmful to the public. This respondent sees such imposition of warning labels on cigarette smoking as double standard. Note the quote below:

*H: They should not be worrying themselves with creating warning labels because labels or no warning label, I will still smoke because tobacco consumption or not, people will still die.*

### **Theme two: Lack of Belief in Warning Labels**

The responses from participants' point to the fact that there is a sizable lack of belief in warning labels among many cigarette smokers. Many smokers know about health risk but for some reason, they decide not to believe in the warning labels. The reasons given by respondent were very diverse but most of the reasons settled on the following; the labels may be fake since 'they' can use the image of someone suffering from another disease or that as humans, or body needs nicotine. Others respondents were dismissive of the labels without any clear reason. The quotes below are typical responses:

*E: This is because they see the warning labels as fake. But I do respect the warning labels despite my addictive nature of smoking because at first I use to consume about 4-6 package daily but now, my consumption rate has reduced from 1-2 daily and I hope that I will quit it one day.*

*J: "To me, I think it is because they do not believe in the warning labels. Moreover, how are we even sure that the images on the package is not for persons suffering from other sickness which is not caused by cigarette."*

*I: "To me it is because many of us smokers we do not believe in the warning labels".*

*D: "This is because me in particular I do not believe in the warning labels and I believe that is the same reason why other are not respecting it too"*

One respondent said considering that his brother works for a tobacco company; his smoking directly contributes to his brothers' salary as can be seen in the quote below:

*C: "To me it is because I do not care about the warning labels and by the way my brother is working in the company and as such, I have to smoke so that they can pay my brother and the other workers"*

The lack of belief on the warning labels accounts for a strong reason why smokers seem not to 'respect the labels' or take it seriously as they continue to smoke. The fact that most of the respondents continue smoking means they haven't started considering whether to quit smoking or not. Most of our respondents justified that they continue to smoke because they attach no real value to the warning labels. Note the following quotes below:

*E: "I think most of my fellow smokers out there do not respect it and this is because most of the do not believe in the cigarette warning labels".*

*I: "No because many of us are still in the game of smoking".*

*D: "I do not think they are respecting it because many persons are still smoking."*

*B: "No we do not because we are still in the act"*

Some respondents however were vocal about the impact cigarette warning labels can have on them. The mere fact that they see the labels and feel that they should reduce their smoking rate is testament that in some instances, the warning labels could be effective in prompting action from a smoker as can be seen in the quotes below:

*J: As for me, I am trying to respect it because the messages and images on the package scare me a lot because at first I was consuming about 4-5 packs a day but now I can take 1-2 packs a day. I do not know if others are respecting it because the numbers of smokers are increasing daily despite the warning labels.*

*A: It depends on individuals to decide whether to respect the warning labels or not. But I try as much as possible to respect the warning because the number of packages I used to consume has reduced.*

### **Theme Three: Limited Influence of Cigarette Warning Labels to Smokers**

From our responses, it appears that the influence cigarette label warnings have on smokers is very limited. As we have seen earlier on in this analysis and as we will see subsequently in detail, this limited influence is a direct result to the fact that smokers see the warning labels as fake. They may be other reasons such as not paying attention to the warning labels or complete ignorance. When asked if cigarette warning labels have an influence on their smoking, some of the responses included the following:

*H: "Those warning labels on the packages of cigarette, it does not influence me in any way. I do not know about the other smokers."*

*G: "The warning labels do not influence me in my smoking because I have never reduced my rate of consumption"*

*I: "It does not influence me in any way."*

*B: "To me it does not influence me in any way because I still smoke in my normal rate."*

*D: "It does not influence me in any way because my rate of smoking hasn't changed; that is 5-7 packet a day."*

One of the main reasons these respondents said cigarette warning labels don't influence them is the fact that they consider the warning labels fake. This can be substantiated by the following supporting quoted below:

*B: "I do not think they are real because I have never seen a person suffering from ill health because of cigarette consumption."*

*H: "All those things are not real. If truly it is real, the government should band I production."*

*C: "No to me they are not real because if the Ministry of Public know that cigarette smoking is bad, they should tell the government to band it if it is bad."*

The influence of warning labels on cigarette smokers could be considered limited or mixed because our sample included respondents who felt the warning labels have influenced them in one way or the other either to reduce their rate of smoking or to quit cigarette smoking. Some of the respondents whose quotes are included below said the warning labels have been influential:



*E: "To me, the warning labels have greatly influenced me because it is as a result of the cigarette warning labels that I have reduced my smoking rate".*

*J: "It influences me to reduce my rate of smoking."*

*F: "The warning labels has influenced my smoking rate greatly as my consumption rate have dropped from about 4-5 daily"*

Consequently, as opposed to respondents who felt the cigarette warning labels are not real, the respondents with the above quotes said the labels are real. The quotes below are typical examples:

*N: "I think that warning labels are real because even in the process of smoking, I always feel pain in my chest."*

*A: "Yes I think they are real because when consuming it you feel it in your chest and how it goes down."*

*F: "Yes I believe that the warning labels are real because I have seen the effects".*

## **Discussion**

This study seeks to assess the effectiveness of cigarette warning labels in informing smokers about the risk of smoking. Our findings answered the three research questions we set forth and the three objectives have been attained. As cited in the literature review section, health warnings on cigarette packaging are among the most cost-effective policy intervention to communicate health information, given their reach and frequency of exposure (Hammond, 2011). Although text-only warnings can be effective at informing smokers of health effects, pictorial warnings are acknowledged as superior to text-only warnings on most metrics, particularly if they are prominent and feature graphic, emotion-arousing images (Cameron, Pepper and Brewer, 2015; Hammond 2011).

Our first research question *RQ1: How effective are cigarette warning labels to smokers?* is answered by the first theme. Our respondents opined that the warning labels were not that effective on them because it hasn't been able to persuade them yet to quit smoking. Because they still continue to smoke, they considered the warning labels as not very effective. However, other respondents felt that the warnings have an effect on them. One respondent noted that he has reduced his smoking rate from several packets a week to a few. There are several factors that can be put forward for such reasons. It is very likely that there are some smokers who don't view the warning label as many times as it is supposed to be. These are smokers who buy several sticks of cigarettes putting it in their pockets and not taking a pack with the label along. This is in consistence with a study carried out in Greece and Romania. It could be said that the proportion of smokers who reported noticing warning labels often or very often varied across countries. It is likely for this reason that most of these smokers don't consider the warning label as effective because they usually don't see it or very few of them see it. According to Bulletin of the World Health Organizations in 2009, Cigarette packages in most countries carry a health warning. However, the position, size and general strength of these warnings vary considerably across jurisdictions. This may also be worthy of note because the warning might need refining to make them more effective.

Our second research question *RQ2: Do smokers belief and trust the graphics and words on cigarette warning labels?* is answered by our second theme. The smokers were split in responses on whether the trust the graphic labels on cigarette packages. As some of them explained, 'the pictures are not real'. However, there were other respondents who felt the warning labels are real although it did not directly prove effective in persuading them to quit smoking. For those who smoke up to a pack-a-day could be exposed to the warnings more than 7,000 times per year. And consequently, warnings on cigarette packages are one of the most important sources of health information. It is not clear whether the size of the graphic could be a factor why some of the smokers did not trust the information or it

should carry a certify seal. This finding is not in consistence with some scholars. Additionally, warning labels on tobacco product have been shown to be effective in providing health information to users and have been associated with health knowledge. Warning Labels have proven to encourage smokers to quit and discourage others to stop smoking as well as encourages cessation. Our finding is not completely in line with this. The 2009 Family Smoking prevention and tobacco Control Act requires graphic (pictorial) health warning to cover the top 50% of the front and rear panels of the cigarette package. The same warnings are required in advertising and must comprise at least 20% of the advertisements area. This could make the warning labels more effective ant catchy.

Our third research question *RQ 3: Are cigarette smokers influenced by cigarette warning labels?* is answered by our theme three. Our study found that the influence of cigarette warning labels on smokers was mixed. Some responses supported the fact that these labels could be effective in influencing smokers while other respondents did not agree with this assertion. The government of Cameroon has bought the initiative to enforce this policy measure which include policy-level measure, such as increased taxation of tobacco products, stricter laws and enforcement of laws regulating who can purchase tobacco products, how and where they can be used (that is smoke-free policies), and restrictions on advertising and mandatory health warnings on packages.

The Transtheoretical Model focuses on the decision-making of the individual and it is a model of intentional change. From our findings, it is apparent that smokers don't consider warning labels as frightening enough to persuade them quit smoking. Our study aligns with the TTN considering that our study determined that people quit smoking only if they were ready to do so. It was evident from our findings that people do not change behaviors quickly and decisively; rather, change in behavior, especially habitual behavior, occurs continuously through a cyclical process.

## **5.0 CONCLUSION AND RECOMMENDATION**

Based on our findings, the warning labels so far are not very effective in persuading the smokers to quit the deadly practice of smoking. Because majority of smokers continue to smoke, they consider they warning labels as not very effective. The smokers have their minds made up and there is need for health experts to use another medium to reinforce the messages on the warning labels. Participants' were split on whether they are convinced with the graphic images as some said the pictures are not real. However, other felt they warning labels are real although it hasn't yet persuaded them to quit smoking. The warning labels can contribute massively to reduce the number of cigarette consumed by smokers.

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