EXAMINING CONTEMPORARY E-CIGARETTE ADVERTISEMENTS AND THE STRATEGIC APPEAL TO YOUTH MARKETS THROUGH CONTENT ANALYSIS

By

Natalie Belva
M.A. student
University of Florida
nabelva@gmail.com

Rachel Hojnacki
M.A. student
University of Florida
rhojnacki@ufl.edu

Allison Justice
M.A. student
University of Florida
amjustice27@gmail.com

Sherezade Rodriguez
M.A. student
University of Florida
svrod16@ufl.edu

Samantha Susock
M.A. student
University of Florida
sjsusock@ufl.edu

A PROJECT-IN-LIEU-OF-THESIS PRESENTED TO THE COLLEGE OF JOURNALISM AND COMMUNICATIONS AT THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN MASS COMMUNICATION

UNIVERSITY OF FLORIDA

2014

ACKNOWLEDGEMENTS

In completion of this project-in-lieu-of-thesis, we would like to thank all of those who have supported us while in pursuit of this educational endeavor. We are thankful for the devotion of our families, the compassion of our friends, cohort, and pets, the encouragement of our educators, and the camaraderie we as a team have leaned on since we began this project.

Table of Contents

Abstract of a Project-in-Lieu-of-Thesis presented to the College of Journalism and Communications at the University of Florida in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Mass Communication

DEVELOPING A PUBLIC HEALTH COMMUNICATIONS CAMPAIGN FOR TOBACCO FREE ALACHUA:

EXAMINING CONTEMPORARY E-CIGARETTE ADVERTISEMENTS AND THE STRATEGIC APPEAL TO YOUTH MARKETS THROUGH CONTENT ANALYSIS

By

Natalie Belva

Rachel Hojnacki

Allison Justice

Sherezade Rodriguez

Samantha Susock

May 2014

Chair: Moon Lee

Major: Mass Communication

Historically, the American tobacco industry has been condemned for using manipulative advertising techniques. Three common themes: satisfaction, reducing anxieties, and association with desirable outcomes, have been mainstays for big tobacco advertising for years, and are re-emerging today in electronic cigarette advertising. Through content analysis, this study examined 61 video advertisements from 15 YouTube channels of American electronic cigarette companies to identify different message strategies manufacturers are using online to market their products in new media platforms. With adolescent electronic cigarette use on the rise in the United States as reported in 2013 by the Centers for Disease Control and Prevention, appeals to adolescents' psychological needs were examined to determine if electronic cigarette advertising is in fact following in the forbidden footsteps of big tobacco.

The study found that electronic cigarette advertising is employing the major message themes of traditional tobacco advertising in addition to three novel themes: convenience, affordability, and innovation. In association with the major themes, strategic appeals to adolescent psychological needs were also discovered; more than half of the advertisements presented messaging that could associate electronic cigarette smoking with having fun, being excited and adventurous, and could suggest the act to be symbolic of freedom and independence. Furthermore, despite legislation preventing electronic cigarette makers from issuing health and safety claims regarding their products, more than half of the electronic cigarette advertisements examined presented health-related messages positioning electronic cigarettes as a safer and healthier alternative to traditional cigarettes.

CHAPTER 1
INTRODUCTION

Cigarette and tobacco use among teens and young adults has been a subject of concern in the United States for many years. Today, more than 3.6 million middle and high school students smoke cigarettes (Centers for Disease Control and Prevention, 2013). Over 4,000 kids try their first cigarette each day, making the fight against tobacco and cigarette consumption increasingly difficult (Centers for Disease Control and Prevention, 2012a). Despite the most recent statistics, between 2002 and 2010, tobacco consumption among adolescents decreased from 45.3 percent to 40.8 percent (U.S. Department of Health and Human Services, 2011).

A new nicotine delivery device, the electronic cigarette or e-cigarette, is causing even more trouble for America's parents and public health officials who are attempting to dissuade younger generations from initiating smoking behavior and to prevent life-long nicotine addiction. Developed in China in 2003, an e-cigarette is a battery-operated device that heats a nicotine solution and converts it into an easily inhalable vapor. E-cigarette sales skyrocketed in 2006 and continue to grow in popularity in the United States today (Hancock, 2013). The e-cigarette, which is designed to look like a traditional cigarette, gives users the illusion that they are still taking part in an activity they have been participating in for years.

Students under the age of 18 are starting to experiment with the use of e-cigarettes. According to findings from the National Youth Tobacco survey, this use has doubled from 2011 to 2012 within this demographic. In 2011, 4.7 percent of high school students reported using e-cigarettes; that number rose to 10 percent in 2012 (Centers for Disease Control and Prevention, 2013). Many believe that e-cigarettes could be considered a gateway for adolescents to tobacco products (Veciana-Suarez, 2013).

Reinforcing this belief is that e-cigarettes come in many different, candy-like flavors, which makes them attractive to adolescents. Another major concern is how e-cigarettes are being marketed and to whom, as advertising often promotes or implies that the product is a healthier and safer alternative to traditional cigarette smoking (Veciana-Suarez, 2013). Recent studies from Europe demonstrate that although e-cigarettes emit fewer toxins, both when inhaled and exhaled into the air around the smoker, they are not completely emission free (Schober, W. et. al., 2013; Czogala, J. et. al, 2013).

The Food and Drug Administration (FDA) currently regulates e-cigarettes marketed for therapeutic use such as smoking cessation (U.S. Food and Drug Admin., 2014). Thus, the vast majority of e-cigarettes in the United States remain unregulated by the FDA. In 1969, the Public Health Cigarette Smoking Act was passed which, among other things, prohibited companies from advertising for traditional cigarettes on television and radio (Centers for Disease Control and Prevention, 2012b). The Family Smoking Prevention and Tobacco Control Act is the most recent bill passed by Congress in 2009; this bill places further restrictions on the marketing and advertising of traditional cigarettes (U.S. Food and Drug Admin., 2013).

Previous studies of traditional cigarette advertisements have suggested that American tobacco cigarette companies knowingly marketed their products to adolescent markets (U.S. Food and Drug Admin., 2013). Researchers identified that major American tobacco companies utilized tactics that appealed to the psychological needs of adolescents in their advertisements, thus, establishing proof that these organizations were attempting to recruit younger generations as consumers of their products (National Cancer Institute, 2008).

Legislation prevents American tobacco companies from advertising on television and radio; however, without advertising restrictions, e-cigarette companies are free to advertise on

television and radio, sponsor sporting events, and distribute complimentary samples of their

products (Centers for Disease Control and Prevention 2012b, U.S, Food and Drug Admin.,

2013). This freedom gives e-cigarette companies the unrestricted access to middle and high

school students that tobacco companies currently lack. Specifically, researchers are concerned

with the access e-cigarette companies have to the youth market by using social media channels,

especially through online video.

Young adults watch online videos as much as they consume gossip television or

magazines, and if a video is interesting to them they will pass it on and share the content with

their friends (Pew Research Center, 2013). Even if e-cigarette companies do not intend to

directly target youth markets, uploading their promotional videos to any social media platform

such as YouTube, will ultimately, garner the attention of young adults and adolescents.

In this study, the primary purpose of research is to identify the different message

strategies e-cigarette manufacturers are using within new media platforms, specifically YouTube,

to market and promote their products. This will allow for a comparison of message themes

employed in e-cigarette advertisements and those used historically in traditional cigarette

advertising. The secondary purpose of this study is to identify the message strategies e-cigarette

companies are utilizing in their advertising to potentially market to adolescents by appealing to

key psychological needs. A final basis of the study is to determine if and how e-cigarettes are

being marketed as a healthier alternative to traditional cigarettes in advertisements. In order to

accomplish this, a mixed methods content analysis was conducted on videos, which were

intended as product advertising and were offered by e-cigarette companies on their respective

YouTube channels. Ultimately, the purpose is to create a strategic public relations plan based on

academic research.

CHAPTER 2
LITERATURE REVIEW

A Burgeoning Market for e-Cigarettes

A product of the 21st Century, the e-cigarette, which was imported into the United States in 2006, was originally marketed online and in select stores such as kiosks in shopping malls (Hancock, 2013). Despite being invented in China, e-cigarettes have gained in popularity within the United States and seem destined to flourish even more when the budding involvement of American tobacco companies is considered. Today, the nation's elite tobacco companies have embraced e-cigarettes and are immersing themselves in the rapidly growing market through the acquisition of small, privately owned e-cigarette companies and manufacturing their own e-cigarette product lines (Elliot, 2013).

E-cigarettes, which do not contain tar or other known carcinogens found in traditional cigarettes, are expected to double in revenue this year to more than $1 billion. Annually, traditional cigarette sales total $80 billion; however, industry experts predict that e-cigarettes will ultimately surpass tobacco sales by 2047. Despite impending federal regulation, e-cigarettes are prospering in an era where smoking has been taboo for over a decade. Analysts attribute this success to a low-cost strategy; typically e-cigarettes cost a third less than tobacco, in collaboration with pervasive advertising campaigns (Robehmed, 2013).

From 2011 to 2012, spending on e-cigarette television advertising increased 17.9 percent, while print ads increased 71.9 percent and industry reports project an inevitable increase with the contribution of major tobacco money aiding consumer enthusiasm in a previously dormant market (Sebastian & McDermott, 2013). In 2013, Lorillard Inc., the third-largest tobacco manufacturer in the United States, purchased blu eCigs for $135 million. In 2014, Lorillard Inc., will invest $30 million in its marketing efforts (Elliott, 2013). Mounting marketing efforts have

public health officials concerned that manufacturers are attempting to market e-cigarettes as a healthier alternative to traditional cigarettes, despite legislation preventing them from making health-related claims in advertising (Sebastian, 2014). Health officials are also apprehensive about whom e-cigarette advertising is targeting (Campaign for Tobacco Free Kids, 2013a).

In 2012, more than 1.78 million middle and high school students in the United States tried e-cigarettes and of those, more than 75 percent claimed to have smoked traditional cigarettes simultaneously within a 30-day period (Centers for Disease Control and Prevention, 2013). Consequently, these dramatic increases have led members of the public health community, such as the FDA, the Center for Disease Control and Prevention, and the American Academy of Pediatrics, to question the role of the industry's marketing efforts (U.S. Food and Drug Admin., 2009). Therefore, intensifying use among teens may be tied to exposure to tailored messaging and images within advertisements designed specifically to appeal to youth demographics, a tactic once used extensively by the American tobacco industry (Arnett & Terhanian, 1998).

Historically, the relationship between e-cigarette marketing and smoking behavior, particularly among adolescents, has not been extensively researched; however, several studies find a strong association among adolescent exposure to advertising, initiation to tobacco use, and progression to continued consumption (National Cancer Institute, 2008). In fact, two unique studies have found that approximately one third of all adolescent smoking can be attributed to tobacco advertising and promotions (Pierce, Choi, Farkas, & Berry, 1998; Biener & Siegel, 2000). Another study demonstrates that exposure to tobacco advertising may be a greater risk factor than having family members and peers who smoke (Evans, Farkas, Gilpin, Berry, & Pierce, 1995). Thus, the relationship between advertising exposure and increased consumption

among youth is a cause for public concern, particularly if e-cigarette advertisements are employing message strategies from the forbidden tobacco marketing playbook.

Influence of Tobacco Marketing on Adolescent Behavior

From early on, tobacco marketing has targeted particular segments of the population, beginning with adult males in the 1920s and quickly transitioning to youth and young adults, women, and specific ethnic populations. Targeting various population groups has been strategically important to the tobacco industry and as such, the industry has invested a bulk of its time and money into market research. This has allowed companies to design products, messages, communication channels, and promotions better aligned with the susceptibilities of particular market segments (National Cancer Institute, 2008). In 2003, U.S. tobacco manufacturers spent $30 million per day on advertising, totaling $11.2 billion annually (Federal Trade Commission, 2003).

Tobacco corporations recognize that most smokers do not change brands once they have settled on a steady first choice, thus one market of particular concern to tobacco companies has always been youth (Pollay, 2000). From the beginning, tobacco companies have understood that survival and prosperity lie in the hands of youth markets (National Cancer Institute, 2008). Through comprehensive analyses of U.S. tobacco industry documents, Cummings, Morley, Horan, Steger, and Leavell (2002) demonstrate that tobacco companies researched youth smoking initiation patterns and developed brand images to appeal significantly to youth (as cited in National Cancer Institute, 2008). Evidence from analyses conducted by Klein and Clair (2000) suggests that the tobacco industry also aligned with the makers of candy cigarettes, which were designed to look like popular cigarette brands and were marketed to children (as cited in National Cancer Institute, 2008).

In understanding adolescents' psychological needs (e.g. independence, freedom, peer acceptance, popularity, gender identity, rebelliousness, seeking excitement, having fun, alleviating stress, anxiety, and depression, etc.), tobacco advertising has manipulated these desires over time by portraying smokers as "attractive, autonomous, accepted and admired, athletic, and at home in nature" (National Cancer Institute, 2008, p. 157). In addition to tailored messaging, tobacco companies have utilized strategic communication channels such as during the closing commercials of children's television shows (Ingram, 2004), in sports and entertainment magazines with high youth readerships (King, Siegel, Celebucki, & Connolly, 1998; Lieberman, 2004), on outdoor billboards (Davis, 1998), and in convenience stores (Henriksen, Feighey, Schleicher, Haladjian, & Fortmann, 2004) to garner the attention of adolescents and to aid in the association of the brand with fun or a certain lifestyle (Cummings et al., 2002). Additionally, sport sponsorship in communities and on television has allowed brands like Winston, Marlboro, Copenhagen, and Skoal to reach a large number of adolescents and young adults in settings that allow for complimentary sampling and promotions, and help associate the brands with the glamour of the entertainment industry and the athletes and celebrities who are a part of it (Blum, 1991).

The most successful campaign targeting youth has been the legendary Marlboro-man (National Cancer Institute, 2008). In addition to the appealing images of cowboys and horses, the underlying message themes (e.g. independence and freedom) address important psychological desires of adolescents (Pollay, 2000; Cummings et al., 2002). According to the 2005 National Survey on Drug Use and Health, Marlboro remains the most popular brand among teen smokers followed by Newport and Camel (Substance Abuse & Mental Health Services Administration, 2006). Today, America's top-three tobacco companies who also manufacture these brands are

venturing into the e-cigarette marketplace and causing public health officials concern that, like with tobacco, the youth market will be the main target of the industry's marketing efforts (Campaign for Tobacco Free Kids, 2013a).

Historical Perspectives of Themes, Targets and Channels of Tobacco Advertising

In 1969, prior to the U.S. Congressional ban on cigarette advertising on television and radio, the tobacco industry offered to discontinue advertising that was "directed to young persons; to abstain from advertising in school and college publications; not to distribute sample cigarettes or engage in promotional efforts on school and college campuses; not to use testimonials from athletes or other celebrities who might have special appeal to young people; to avoid advertising which represents that cigarette smoking is essential to social prominence, success, or sexual attraction; and to refrain from depicting smokers engaged in sports or other activities requiring stamina or conditioning beyond those required in normal recreation" (Cullman, 1969, p. 79). The themes and targets offered by former Phillip Morris Chief Executive, Joseph F. Cullman III, in his testimony before Congress, would go on to be utilized extensively in traditional cigarette advertising for years and may be present in today's advertisements for e-cigarettes (National Cancer Institute, 2008). Today, e-cigarette advertisements: use celebrity spokespeople, depict e-cigarette use as masculine, sexy or rebellious, portray the use of their products as sexually attractive, utilize sport and music sponsorships, market candy-like flavors, use cartoons, and discourage smoking cessation (Campaign for Tobacco Free Kids, 2013).

According to the Pew Research Center, 95 percent of teens today are online and they have been consistently since the importation of e-cigarettes into the United States in 2006 (Madden, Lenhart, Duggan, & Cortesi, 2013). A 2013 study conducted by Nagy, Lynn, Riemer,

and Fay, identified the Internet as teenagers' primary outlet for media consumption. On average, males and females, ages 13 to 24, spend 16.7 hours a week online, compared to 13.6 hours watching television (Weaver, 2013). Teenagers accounted for more than $1 billion of online sales in 2001(Montgomery, 2001); consequently, the tobacco industry invested $21.6 million in Internet banner advertisements in 2002 (Center for Alcohol Marketing and Youth, 2004).

From the 1960s until the late 1980s, the Federal Trade Commission (FTC) annually reviewed tobacco advertising and identified three examples of common themes used to promote the sale of cigarettes: satisfaction, reducing anxieties, and association with desirable outcomes (National Cancer Institute, 2008).

Satisfaction

For years, tobacco advertising has aimed to represent cigarettes as satisfying in many aspects; taste, in particular, has been the most persistent appeal. Claims of "freshness, mildness, and strength" have been mainstays for tobacco companies in terms of differentiating their product from their competitors and attracting starter smokers (National Cancer Institute, 2008, p. 145). For example, campaigns such as Winston's *Taste isn't everything. It's the only thing.* and Camel's *Pleasure to Burn* have relied solely on consumers' sense of taste in order to generate sales. Additionally, menthol cigarettes were created in an attempt to attract young, new smokers who may have been previously disinclined to try smoking due to the harsh taste of traditional cigarettes (Sutton & Robinson, 2004; Cummings et al., 2002).

According to Phillip Morris USA, tobacco companies were aware of the allure of *cooler* cigarettes and in turn, utilized coded words such as *smooth* and *cooler* to shape their advertising messages in order to appeal specifically to adolescents' sense of taste while also manipulating

their desire to be perceived as *cool* among their peers (as cited in Sutton & Robinson, 2004, italics added).

Reducing Anxiety

The second major theme, reducing anxieties, aspires to alleviate concerns about the health consequences associated with cigarette smoking by focusing on "healthy cigarettes," which contain lower amounts of tar or nicotine than traditional cigarettes (National Cancer Institute, 2008, p. 146). Advertisements such as True's 1976 campaign, *Considering all I'd heard, I decided to either quit or smoke True. I smoke True.*, portrayed smoking cigarettes that contained lower amounts of tar and nicotine to be as healthy as quitting cigarettes altogether, thus offering smokers an alternative to cessation and customer retention for tobacco companies as well (Pollay & Dewhirst, 2002).

Perry, Murray and Klepp (1987) studied the relationship between smoking and stress reduction among middle and high school students and found that students were more likely to smoke if they thought it would alleviate boredom or loneliness. Another study by Evans et al. determined that more than 50 percent of California teenagers believed cigarette ads communicated that smoking would help them relax (1995).

Desirable Associations

The third prevailing theme, association with desirable outcomes, consists of several subthemes, which associate smoking "with persons, ideas, places, outdoor and athletic activities, personality characteristics, success (social, sexual, etc.), slimness, and other conditions considered desirable by target groups" (National Cancer Institute, 2008, p. 146). Marlboro's long-standing campaign, which associates smoking with its iconic image of an independent, mature, and rugged cowboy, and Virginia Slims', appeal to female liberty, slenderness, and

success are both fundamental examples of tobacco companies' manipulation of desirable

outcomes specific to a target group as conveyed in tobacco advertising (Federal Trade

Commission, 1968).

Given the speculation of media and the public health community, this study attempted to

answer the following research questions:

RQ1. What are the major themes presented in e-cigarette advertisements?

RQ1a. Are the major themes identified in contemporary e-cigarette advertisements the

same as those identified in traditional cigarette advertisements?

Among adolescents, research demonstrates that smoking-related messages are positively

associated with psychological desires, such as attributes of an adolescent's masculinity or

femininity; success with the opposite sex; rebelliousness; having fun, seeking excitement and

taking risks; and relieving stress and promoting relaxation. Further evidence shows that

adolescents suffering from high amounts of stress or depression also appear more receptive to

cigarette smoking (National Cancer Institute, 2008).

Drawing on the previous work of the National Cancer Institute (2008) regarding tobacco

marketing, in particular the strong association between advertising exposure and initiation to

tobacco use and continued consumption, this study explores the adolescent appeals of messaging

presented in e-cigarette advertisements by attempting to answer the following research questions:

RQ2: What percentage of the advertisements presenting a major theme appeal to

adolescents?

RQ2a. To which psychological needs do e-cigarette advertisements appeal most?

RQ2b. How do the themes appeal to psychological needs of adolescents?

Health Belief Model and Health Communication

Research on health behaviors has developed and advanced various models and theories, each trying to understand and explain what influences health behaviors among different demographics and social groups. There is myriad of factors that explain the differences in demographics when studying health habits, "such factors are frequently impossible to change or require political intervention at national or international levels" (Connor, 2010, p. 19).

In 1950, social psychologists Hochbaum, Rosenstock and Kegels sought to explain preventative health behaviors and understand the "widespread failure of people to accept disease preventatives and or screening tests for the early detection of asymptomatic disease" (as cited in Rosenstock, 1974, p. 328). Consequently, a body of research emerged with modifiable factors to determine the relationship between socio-demographics and health behaviors. Social cognitive models, in particular, are sets of health cognitions that do not predict a linear behavior, but combine and overlap different factors to better predict health behaviors (Connor, 2010). The Health Belief Model is one of the most widely known and practiced social cognitive models in human health research.

The model, which was formulated from a body of psychological and behavioral theory, conceptualized two variables to hypothesize health-related behavior, the desire to avoid illness; and the belief that specific health actions will prevent an illness (Janz & Becker, 1984). As scholars studied the model and applied concepts and variables to specific illnesses or health trends, the model has come to suggest that there are specific dimensions that explain the level of individual engagement as well as a stimulus that triggers a health promoting behavior (Janz & Becker, 1984; Rosenstock, 1974).

According to Glanz, Rimer, and Viswanath (2008), there are seven theoretical constructs that formulate the Health Belief Model's theoretical framework:

Perceived Susceptibility – The individual's belief of a developing health problem. Individuals who believe they are susceptible to a particular health problem will engage in behaviors to reduce their susceptibility.

Perceived Seriousness – The individual's belief about the severity of a particular disease. This construct suggests that the individual acts to prevent the health issue from occurring. This may measure a tobacco user's belief that smoking will lead to health-related consequences.

Perceived Benefits – The individual's belief that taking action about a perceived health risk renders benefits and reduces the threat. This may measure the perception that taking action will reduce perceived health risks, such as lung cancer or other health disease.

Perceived Barriers – Opposite of perceived benefits, the individual believes there are potential negative aspects when taking a particular health action. For tobacco users, barriers may be psychological or concrete. A tobacco user may feel that by quitting smoking it will affect their social life or establish a fear such as gaining weight.

Self-efficacy – The individual believes one can achieve a behavior that will foster a perceived outcome. Self-efficacy influences a threat, such as susceptibility and severity. This may measure the confidence of a tobacco user's ability to quit smoking.

Cues to Action – Social cues in the environment trigger action concerning a particular health risk, and whether an individual will engage in a health-promoting behavior.

Additionally, modifying factors such as age, gender, race, ethnicity, education, personality and knowledge influence individual perceptions or health beliefs, thus influencing an individual's action or behavior (Glanz, Rimer, & Viswanath, 2008).

A particular theoretical construct of interest to the researchers is cues to action. Social cues in the environment can trigger action concerning a particular health risk, and as such, an individual will engage in a health-promoting behavior based on the stimuli (Glanz, Rimer, & Viswanath, 2008). These cues act on individual perceptions, including perceived benefits and susceptibility, and can be triggered internally or externally (Glanz, Rimer, & Viswanath, 2008). Internal triggers may include symptoms such as pain or psychological anxieties, while external triggers may include mass media communication such as advertising (Glanz, Rimer, & Viswanath, 2008).

Media, in particular, has influenced adolescents through exposure to tobacco and anti-tobacco messages simultaneously (Viswanath, 2005, as cited in the National Cancer Institute, 2008, p. 4). As a development of the 20th century, "mass media became a powerful vector that carried tobacco to a growing number of susceptible hosts throughout the country," likewise, "media play a critical role in tobacco control, helping to counterbalance the pro-tobacco cues in the environment" that exist even in modern society (Viswanath, 2005, as cited in National Cancer Institute, 2008, p. 4).

According to the National Cancer Institute, cigarettes are one of the most heavily marketed products in the United States (2008). As a result, the relationship between tobacco marketing and tobacco consumption throughout the general population has been researched extensively over time (National Cancer Institute, 2008). Evidence from three cross-sectional studies indicates a positive effect of advertising on tobacco consumption (Lewis et al., 1981;

Roberts & Samuelson, 1988; and Goel & Morey, 1995). Furthermore, international studies conducted by Laugesen and Meads (1991) on tobacco advertising bans in different countries demonstrate that comprehensive bans implemented after 1973 significantly reduced tobacco consumption (as cited in National Cancer Institute, 2008). The findings from Laugesen and Meads' (1991) study offer ancillary support that a causal relationship between tobacco advertising and increased smoking initiation and prolonged consumption does exist and denote the importance of comprehensive antismoking legislation as well (as cited in National Cancer Institute, 2008).

Health Belief Model and Adolescent Tobacco Use

Adolescent tobacco use is a prevalent public health issue and fits into the structure of health-related behavior. Nearly all tobacco use begins in young adulthood. According to the U.S. Department of Public Health and Human Services, 88 percent of U.S. smokers began before the age of 18, 18 percent of high school students smoke cigarettes, and 10 percent use smokeless tobacco (*BeTobaccoFree*, 2014). The statistics, consequently, have lead to government agencies implementing health intervention communication programs and increased prevention programs in middle and high school (Turbin, Jessor, & Costa, 2000).

Maryland's Tobacco Research Center links professionals to best practices in health communication intervention targeted at tobacco smoking habits (*Health Belief Model*, 2011). The center follows the Health Belief Model to frame messages tailored at tobacco cessation, including assessing clients' perceived susceptibility of tobacco dependency, perceived seriousness of health risks barriers and benefits of smoking cessation (*Health Belief Model*, 2011). The center measures social cognitive constructs and creates message strategies that will influence smoking cessation. Such implementation strategies may include various social cues,

which include clarifying the risks using fear tactics or statistical chances of acquiring a health condition, identifying strategies to overcome barriers, cues to action utilizing doctor recommendations or reminders of a health plan, and finally, creating messages that will train or guide tobacco smokers to strengthen self-efficacy (*Health Belief Model*, 2011).

As previously mentioned, age is a significant modifying factor that influences health beliefs and subsequent health behaviors (Glanz, Rimer, & Viswanath, 2008). The Health Belief Model and its constructs may explain the health behavior of adolescents, particularly adolescent smoking. The presumed explanation is that adolescents believe they are invulnerable to the health effects of smoking as they possess "poor decision making and risk-judging skills;" social cues may specifically contribute to these beliefs (Song et al., 2009). A study that employed prospective, longitudinal data to test whether smoking perceptions predict the smoking behavior of adolescents, found a relationship between smoking perceptions of risks, benefits, and adolescent smoking initiation (Song et al., 2009). Adolescents who believed that the long and short-term risks of smoking were least likely to occur were more likely to initiate smoking than adolescents who believed that the risks were more likely to occur (Song et al., 2009). The equivalent was also found among adolescents who believed smoking-related benefits were more likely to occur (Song et al., 2009).

Social cognitive theories such as the Health Belief Model theorize individuals' beliefs about the consequences of their actions and are indicative of their consequential behavior. The most prominent application of the Health Belief Model is to address individual perceptions and behavior and develop messages for health campaigns that help individuals make better health-related decisions; such messages are delivered in the form of education materials, including print, electronic or counseling (National Cancer Institute, 2005). By understanding adolescent

perceptions about the risks and benefits of harmful health habits such as smoking, health intervention programs can tailor messages to decrease the initiation of smoking at a young age.

Communicating health risks and benefits by social cognitive means can help increase public knowledge and create the precondition for change (Bandura, 2004). Although Maryland's Tobacco Resource Center uses the Health Belief Model to create message strategies for individual clients, these same social constructs could be generalized to audiences using e-cigarettes or those who may be coerced to begin the habit. Therefore, by understanding social cognitive theories, in particular social cues presented in e-cigarette advertising, health intervention campaigns utilizing the Health Belief Model framework may be able to tailor messages to effectively address audiences across different demographics and social groups.

In anti-tobacco campaigns, the Health Belief Model utilizes social cognitive constructs to develop theory-based persuasive health campaigns to prevent initiation of adolescent smoking and influence the cessation of adolescent smoking (Cohen, Shumate, & Gold, 2007). Although tobacco prevention and intervention programs employ strategic messaging to highlight the health consequences of cigarette smoking and tobacco use, public health organizations speculate that e-cigarette advertisements exploit anti-tobacco messaging by using it to downplay the negative and potentially harmful health risks associated with using e-cigarettes (Campaign for Tobacco Free Kids, 2013a). Therefore, this study explores the manipulation of established social cues set forth by various U.S. anti-tobacco campaigns throughout history by attempting to answer the following research question:

RQ3. What percentage of the advertisements present e-cigarettes as a healthier

alternative to traditional cigarettes?

RQ3a. How do the advertisements present e-cigarettes as a healthier alternative to

traditional cigarettes?

CHAPTER 3
METHODOLOGY

Design

This study employed a mixed-method, quantitative and qualitative content analysis, to identify message strategies utilized in contemporary e-cigarette advertisements online. A content analysis is "a systematic, objective, and quantitative method for researching messages" (Stacks, 2011, p. 119). Two types of data can be discovered with content analysis: manifest content and latent content. Manifest content "can be categorized as words, characters, physical measures of time and space, and items" (Stacks, 2011, p. 121). In contrast, latent content examines the themes or theses presented (Stacks, 2011). Both manifest and latent content were of importance to the researchers thus, a mixed-method approach was deemed appropriate for this study.

Researchers examined e-cigarette advertisements using the social sharing site YouTube. To date, the most popular site for online video sharing and viewing among teenage demographics is YouTube (Szalai, 2009). According to the Pew Research Center, "most teens consider it to be the "normal" way of watching a video" (2013). In 2013, Wikia, the world's leading collaborative media company, in partnership with Ipsos MediaCT, conducted an extensive online study of more than 1,200 users who were U.S. residents and ranged in age from 13 to 18; it was discovered that 93 percent of the respondents claimed to visit YouTube at least once a week and 54 percent said they visit the site multiple times each day (PRNewswire, 2013). In comparison, 65 percent said they visit Facebook, 26 percent visit Twitter and Google+, and only 17 percent visit Instagram on a weekly basis. The popularity of YouTube among adolescents makes it an ideal platform for examining what e-cigarette companies and their brands are posting to their YouTube pages, the content of which can be viewed by anyone with a

computer, tablet or smart phone. Therefore, for the purpose of this study, YouTube videos offered by e-cigarette companies on their respective channels were analyzed.

Sample

The preliminary video population examined was derived from the Stanford Research into the Impact of Tobacco Advertising (SRITA) YouTube channel. This organization, which is comprised of students and faculty from the Departments of History and Anthropology as well as the School of Medicine, "analyzes the effects of tobacco advertising, marketing and promotion" (Stanford School of Medicine, 2014). YouTube is used by SRITA to educate target publics about the manipulative advertising techniques of the past and present as employed by America's big tobacco companies. More recently, they aim to demonstrate how e-cigarette companies may be employing similar strategies in their advertising. The SRITA YouTube channel has a playlist dedicated to electronic cigarette commercials and online videos, featuring a total of 15 e-cigarette companies that have their own YouTube channel.

Due to the novelty of e-cigarettes, the researchers were unable to pinpoint a credible record of e-cigarette companies based in the United States. As a result, the SRITA playlist was used as a point of reference for the initial population sample of YouTube videos for this study. To begin, the researchers searched YouTube for the 15 companies established from the SRITA playlist and located each company's specific YouTube channel. The 15 companies the researchers examined were: Eonsmoke E-cigarettes, Blaze Electronic Cigarettes, Volcano Ecigs, Smoke 51, Smartcigs.com, Safe Cig, NJOY, Esmoke Freedom, Lizard Juice, Green Smoke, Flavor Vapes, FIN Electronic Cigarette, Chase Cigs, and blu Cigs. The researchers then observed all available videos on each individual channel and systematically selected videos suited for coding. Videos were excluded if the video was: a radio or newscast, produced for an

international company or audience, comprised of user-generated content, or duplicated within the

playlist. The sample population totaled 63 YouTube videos. Five researchers, whom are all

graduate students at the University of Florida studying communications, specializing in public

relations, analyzed the sample of videos.

Measurement

The unit of analysis was the individual video, with an examination of the specific

message themes as offered by the FTC and outlined in the literature: satisfaction, reduction of

anxieties, and association with desirable outcomes (National Cancer Institute, 2008). The coding

scheme (see Appendix A) established directions that were referenced when coding the message

themes. Similarly, the qualitative coding sheet (see Appendix B) directed the coders and gave

them an area to record reactions and elements of the video that required further explanation.

Satisfaction was determined to be present if the advertisement appealed to the taste of the e-

cigarette. Reduction of anxieties was determined to be present if e-cigarettes were presented as a

less risky, safer or healthier option than traditional e-cigarettes, and also portrayed the use of an

e-cigarette as a means for alleviating boredom or loneliness. The final theme, association with

desirable outcomes was determined to be present if the use of e-cigarettes was portrayed as

rebellious, fun, exciting and adventurous, relieving stress and promoting relaxation, having

success with the opposite sex, particularly masculine or feminine, and symbolic of freedom, and

independence and/or peer acceptance. Researchers also looked for new themes not found in

previous tobacco advertising that applied to e-cigarettes, specifically.

According to the National Cancer Institute (2008), "adolescence is a period of change

related to puberty, increasing independence from parents, educational environment (elementary

to middle school to high school), and greater importance of peers" (p. 215). Consequently, these

changes contribute to the development of important psychological needs, which can affect body image, interest in the opposite sex, desire for independence and autonomy in decision making (Stice, 2003; Eccles, J., Midgley, C., Buchanan, C., Reuman, D., Flanagan, C., & Iver, D., 1993). The latter are often sources of conflict within a family and can lead to acts of rebellion and parental defiance.

The reduction of anxieties theme and the association with desirable outcomes theme contained adolescent psychological needs for which the researchers coded. Specifically, the needs that the researchers looked for included: healthier alternative to traditional cigarettes, alleviating boredom, alleviating loneliness, rebelliousness, having fun, being excited and adventurous, relieving stress and promoting relaxation, masculinity and/or femininity, success with the opposite sex, freedom and independence, and peer acceptance.

Researchers determined that the psychological need healthier alternative to traditional cigarettes was present if the video presented statements similar to no stains, no tar, doesn't cause bad breath, safer alternative to cigarettes, less carcinogens, no second hand smoke, etc. Alleviating loneliness was present if the video participant did not have to go outside to smoke, if the person was alone and then when the e-cigarette was introduced they were shown with a group of people having a great time. Similarly, alleviating boredom was present when there were clear images of boredom that turned into a fun interactive encounter when e-cigarettes were introduced, the body language or speech of the participants improved, or the participants were surrounded by a ton of people having fun.

Rebelliousness was identified if a participant in the video was shown clearly disobeying authority or doing something extraordinary. If an advertisement appealed to having fun, being excited and adventurous, the video participants were shown enjoying themselves, exhibiting

positive emotions such as smiling or laughing, or doing something that would be considered adventurous or risky behavior; for example, being at a party, driving a motorcycle or exploring the outdoors. The third psychological need that the researchers looked for pertained to adolescents' desires to be stress-free and relaxed. This was determined to be present if the participant initially appeared to be upset, disgruntled, or flustered, but when an e-cigarette was introduced they were shown as relaxed and at ease.

The researchers also looked for appeals aimed at the psychological needs of adolescents to be seen as particularly masculine or feminine. Masculinity was identified when a male participant received more attention because of his features; for example having a strong physique, tattoos, displaying toughness and/or overt physical abilities, and self-confidence. Femininity was identified when a female participant was portrayed as sexier by using the e-cigarette, very attractive, thin or was dressed fashionably. Success with the opposite sex is highly desired among adolescents thus, the researchers identified appeals that could suggest smoking an e-cigarette would be attractive to the opposite success; for example, if an e-cigarette user is approached by a member of the opposite sex in a sexual manner.

The final adolescent psychological needs the researchers looked for appeals to were freedom and independence, and peer acceptance. Potential appeals to freedom and independence included if the video participant was able to use an e-cigarette without permission from others, was shown living on his or her own, and free to make personal decisions. Peer acceptance was identified as potentially appealing to adolescents if the video presented e-cigarette users as being included in group activities, having strong friendships, and communicated that peers were accepting of their choice to smoke e-cigarettes.

Researchers also provided a description of the participants in the video, specifically their approximate age and gender. The age of the participant was divided into three different categories: under 18, ages 18 to 40, and ages 40 and above. A description of the venue and audio of the video was also identified because these elements are important factors to examine when attempting to determine the target audience of the video. Furthermore, researchers analyzed the advertisements for mention of traditional cigarettes and the context in which they were presented.

Features separate from the content of each video were also observed such as the length of the video, as well as if the video contained an external link to the e-cigarette company's website within the video description. The researchers also documented the amount of views the video received; this information aided researchers in determining the potential impact a video could have in relation to other videos. Additionally, the researchers surveyed the description of the video, noting if there was a description present. Lastly, it was recorded if the video contained a disclaimer pertinent to youth; such as "must be over 18 years of age," "not for sale to minors," or "adults only."

<p align="center">**Reliability Testing**</p>

Before coding the sample, the researchers determined intercoder reliability. To establish this, the five coders first examined a sample of 20 percent or 13 of the videos. Intercoder reliability was calculated using Krippendorf's alpha, computing a reliability coefficient of 0.562. According to De Swert (2012), a coefficient of 0.8 or higher is considered good reliability. Since the researchers reliability coefficient fell below this number the coding scheme was reviewed and the researchers performed a second test on a sample of 10 percent or 6 of the videos. For this testing the researchers achieved a reliability coefficient of 0.82, thus, gaining a good reliability

coefficient. To ensure further validity of the findings, three participants outside of the researchers were employed as guest coders. Among the guest coders, two of the participants were male, one smoker and one non-smoker, and ranged in age from 21-24. The final guest coder was a 26-year-old, non-smoking female. The secondary coders each analyzed the same three videos, which were randomly selected from the sample by the researchers. The coding agreement between the researchers and the guest coders was equivalent to a reliability coefficient of 0.91, which was calculated using Krippendorfs Alpha.

CHAPTER 4
RESULTS

The final sample population totaled 63 YouTube videos uploaded between May 2008 and

January 2014. Two videos were excluded during coding, one was a duplicate and the other one

advertised the e-cigarette pack and charger, not the e-cigarette itself. The minimum length of the

videos coded was 14 seconds, the maximum was 301 seconds, and the mean was 57 seconds.

The least viewed video of the sample had 80 views, while the most viewed video had 342,074;

the average was 31,724 views (see table C1).

General Video Information

The researchers coded for whether or not the YouTube video had: an "over 18"

disclaimer, a video description, and a link to a social media platform or company website. Out of

the 61 videos coded, 61% (n=37) failed to include a "must be over 18 to purchase or not for sale

to minors" disclaimer; only 39% (n=24) did include the disclaimer. The vast majority of videos,

98%, (n=60) included some sort of description about the company, video, or product in the *About*

section, and 84% (n=51) of those videos with a description included a link connecting viewers to

the company website or a social media channels (see table C2).

Major Themes

Research question one asked how many of the major themes were present in the e-

cigarette advertisements coded. In order to answer this, researchers calculated the frequency in

which each major theme (i.e. satisfaction, reducing anxieties, and association with desirable

outcomes) appeared in the video sample. At least one of the themes historically found in e-

cigarette advertisements was present in each video coded (see table C3 below). Due to the fact

that the themes were not held mutually exclusive, more than one theme could be identified in a

video. Association with desirable outcomes was the predominant theme employed most,

appearing in 87% (n=53) of the videos. The second most prevalent theme was reducing anxieties

(n=46), which was observed in 75% of the videos. Lastly, satisfaction was presented in 43%

(n=26) of the videos.

Table C3: Theme Frequency

Theme	Percentage	Frequency
Reducing Anxieties	75%	46
Association with Desirable Outcomes	87%	53
Appeal to Satisfaction	43%	26

Additionally, through qualitative analysis, the researchers identified three new themes

that appeared frequently and emerged from the video sample (see table C4). The emerging

themes included: convenience, affordability, and innovation. Convenience appeared in 15% of

videos sampled (n=9). Affordability was present in 10% (n=6) while innovation was identified in

13% (n=8). A key component of the convenience theme was freedom; the freedom to smoke

anywhere, any time. The affordability theme was present when the advertisement emphasized the

cost of e-cigarettes; specifically, the cost of e-cigarettes in comparison to the cost of traditional

cigarettes. Innovation was identified in advertisements that presented e-cigarettes as a high-tech,

trendy or modern.

To further analyze, research question 1a looked at whether or not the major themes

identified in contemporary e-cigarette advertisements were the same as those identified in

traditional cigarette advertisements. By coding the most common themes (i.e. satisfaction,

reducing anxieties, and association with desirable outcomes) that were established by previous

research regarding conventional tobacco advertising, these results were able to be established. It

was discovered that the major themes presented in e-cigarette advertisements were the same as

those common to early tobacco advertisements. Results shows that the association with desirable

outcomes (87%) (n=53) and reducing anxieties (75%) (n=46) themes were viewed most often, appearing in 87% and 75% of videos, respectively. The third major theme, satisfaction, was present in 43% (n=26) of the videos examined.

Association with Desirable Outcomes

Videos were considered to appeal to the association with desirable outcomes theme if there was a direct mention or act of: rebelliousness; having fun, being excited or adventurous; relieving stress and promoting relaxation; freedom and independence; and/or peer acceptance. Over a third of the videos, 39% (n=24), portrayed rebelliousness; 64% (n=39) of the videos presented characters having fun, being excited or adventurous; 24% (n=15) appealed to relieving stress and promoting relaxation; 62% (n=38) showed freedom and independence; and 49% (n=30) demonstrated peer acceptance (see table C4).

Additional factors, including masculinity, femininity and success with the opposite gender, contributed to the association with desirable outcomes theme (see table C7). The videos analyzed showed that masculinity (51%) (n=31) was more likely to be present in e-cigarette advertisements than femininity (41%) (n=25). Further, 33% (n=20) of videos appealed to the psychological need of success with the opposite gender.

Reducing Anxieties

Videos were considered to appeal to the reducing anxieties theme if there was a direct mention or act of e-cigarettes being healthier than traditional cigarettes, e-cigarettes alleviating boredom, and/or e-cigarettes alleviating loneliness. Out of the 61 videos, 51% (n=31) portrayed e-cigarettes as a healthier alternative to traditional cigarettes, 20% (n=12) of the videos appealed to the psychological need of alleviating boredom, and 31% (n=19) of the videos appealed to the psychological need of alleviating loneliness (see table C5).

Satisfaction

Satisfaction, which was the least frequently occurring theme present, was measured by a mention of taste or flavor. Occurring in 43% of videos (n-26), online advertisements appealed to the satisfaction theme if the taste of the e-cigarette as cool or smooth. Examples include stating that e-cigarettes taste like cigarettes or mention specific flavors such as strawberry.

Adolescent Appeals

The second research question sought to determine the percentage of advertisements appealing to adolescents through the presence of a major theme. In order to determine this, the percentage of e-cigarette advertisements where a major theme occurred (i.e. satisfaction, reducing anxieties, and association with desirable outcomes) was addressed and messaging that appealed to at least one adolescent psychological need was calculated. As noted above, the theme most frequently presented in the online advertisements included the association with desirable outcomes (87%) (n=53) and reducing anxieties (75%) (n=46). Results show that at least one theme was present in all 61 of the videos coded.

In order to answer research question 2a, the researchers calculated the frequency in which each psychological need was appealed to by an e-cigarette advertisement. The psychological need that presented itself most frequently during coding was having fun, seeking sensation, and being adventurous, which occurred in 64% (n=39) of the videos. Following having fun, the second most frequent psychological need was freedom and independence (62%) (n=38) followed by e-cigarettes being presented as a healthier alternative (51%) (n=31) and masculinity (51%) (n=31). See Table C8 below for full frequency results regarding the psychological needs.

Table C8: Psychological Needs Frequency

Psychological Need	Percentage	Frequency
Having fun, being excited or adventurous	64%	39
Freedom and independence	62%	38
Healthier alternative to traditional cigarettes	51%	31
Masculinity	51%	31
Peer acceptance	49%	30
Femininity	41%	25
Rebelliousness	39%	24
Success with opposite gender	33%	20
Alleviating loneliness	31%	19
Relieving stress and promoting relaxation	24%	15
Alleviating boredom	20%	12

By examining the frequency of psychological needs qualitatively, the third and final part of research question 2 was answered. The various themes appealed to the psychological needs of adolescents in a few ways that were regularly present. The most common appeal to adolescents' psychological needs, having fun, seeking excitement and adventure, was often depicted by showing groups of people socializing, out having a good time at a bar or restaurant, and other high energy environments. Many of the videos featured young characters, often portrayed as cool and socially popular. The second most frequent psychological need, freedom and independence, was often portrayed by characters having their own living spaces, cars, money, and decision-making skills. Additionally, verbal phrases such as "taking back your freedom" and "rewriting the rules" occurred repeatedly through e-cigarette companies Fin and blu, respectively.

Healthier Alternative

Calculating the percentage of videos clearly presenting e-cigarettes as a healthier alternative through visual or audio means allowed research question 3 to be addressed. In just over half of the videos (51%) (n=31), e-cigarettes were directly presented as a healthier

alternative to traditional cigarettes.

Over half of the videos coded mentioned or showed traditional cigarettes in some form (65%) (n=40). Research question 3a sought to answer how advertisements present e-cigarettes as a healthier alternative to traditional cigarettes. Out of those 40 videos, 62% (n=38) negatively referred to traditional cigarettes through visual methods (34%) (n=21) and/or through audio (45%) (n=28) (see table C9 below). Visual methods consisted of traditional cigarettes presented in the form of images, and audio consisted of dialogue directed at the audience or between characters referencing traditional cigarettes. Audio and visual cues that were often presented within messages included a discussion that e-cigarettes do not contain tar, carcinogens, and don't produce secondhand smoke.

Table C9: Traditional Cigarettes

Factor	Percentage	Frequency
Mention or show cigarettes	65%	40
Negative reference	62%	38
Visual	34%	21
Audio	45%	28

Additional Findings

Demographics

Other components were measured to determine the demographics and tendencies of e-cigarette advertisements. Whether a video included only females (11%) (n=7), only males (23%) (n=14) or both (59%) (n=36) was measured. While not mutually exclusive, it is important to note that characters could be considered both not human and an object, therefore, the remaining percentage consisted of cartoon characters (5%) (n=3), not human characters (3%) (n=2) and/or objects (10%) (n=6). The majority of characters in the e-cigarette advertisements fell into the 18

to 40 age range (86%) (n=53). Approximately 14% (n=9) were categorized as under 18 years of
age.

Other Factors

Out of the videos coded, 9% (n=6) included a celebrity, 98% (n=60) included graphics
and 83% (n=51) featured music. The majority of graphics that were implemented into
advertisements were brand logos, age disclaimers, and various product text. Further, the type of
music that most frequently occurred was techno/electronic, instrumental, and alternative. Within
the videos, 78% (n=48) had dialogue directed at the audience, while 26% (n=16) included
dialogue between characters.

Qualitative Findings

In addition to quantitative coding, qualitative coding was conducted to identify trends and
emerging themes. Three new themes emerged from qualitative research, including: convenience,
affordability, and innovation. These new themes appeared on a frequent basis. In addressing how
e-cigarettes are presented as a healthier alternative to traditional cigarettes, the following
messages were regularly identified: no smell, no ashes, no tar, no tobacco, no secondhand
smoke, no stains, and no yellow teeth. Through video transcriptions certain words and text
became common among the advertisements including frequent mentions of smoking anywhere
(33%) (n=20), odorless (23%) (n=14), flavor (33%) (n=20), and no ash or tar (52%) (n=32).

CHAPTER 5
DISCUSSION

The primary purpose of this study was to identify the different message strategies e-cigarette manufacturers are using within new media platforms, specifically YouTube, to market and promote their products. Additionally, researchers aimed to determine if the message themes presented in e-cigarette advertisements were similar to those used in traditional cigarette advertising historically.

Comparison of Major Themes Past and Present

As the researchers examined the 61 videos from 15 e-cigarette companies' YouTube channels, they looked carefully at how the advertisements presented e-cigarettes as satisfying in taste, alleviating concerns about the health consequences associated with e-cigarette smoking, and associated e-cigarette use with outcomes considered desirable by adolescents. From the 1960s until the late 1980s, the FTC annually reviewed tobacco advertising and identified three examples of common themes used to promote the sale of cigarettes: satisfaction, reducing anxieties, and association with desirable outcomes (National Cancer Institute, 2008). Overall, from the findings presented, it was determined that the major themes used historically to market traditional cigarettes are also being utilized in modern advertising for e-cigarettes. Furthermore, researchers discovered new emerging themes, which appeared frequently in the advertisements examined for this study.

Satisfaction

According to the National Cancer Institute (2008), claims of "freshness, mildness, and strength" have been mainstays for tobacco companies in terms of differentiating their product in

terms of satisfaction in taste from their competitors and attracting starter smokers. E-cigarette advertisements that presented the satisfaction theme appealed to taste through a variety of flavors such as *classic tobacco, magnificent menthol, cherry crush, and vivid vanilla* among others. Additional claims of *smoothness* and *freshness* were also prevalent among advertisements presenting the satisfaction theme.

Reducing Anxieties

In an attempt to alleviate concerns about the health consequences associated with cigarette smoking, American tobacco companies communicated that smoking cigarettes, which contained lower amounts of tar and nicotine was a healthier and safer alternative to regular tobacco cigarettes. For example, advertisements such as Lorillard's 1976 True campaign, whose slogan: *Considering all I'd heard, I decided to either quit or smoke True. I smoke True.*, equated smoking cigarettes that contained lower amounts of tar and nicotine to be as healthy as quitting cigarettes altogether. Likewise, e-cigarette advertisements that presented the reducing anxieties theme portrayed e-cigarettes as less risky, safer or healthier than smoking traditional cigarettes. Additionally, e-cigarettes were presented as a means to alleviate boredom and loneliness by presenting e-cigarette users in a group setting. Further, many advertisements aimed to ease the frustration of having to go outside to smoke by showing e-cigarette users smoking indoors.

Desirable Associations

For years, tobacco companies have associated smoking "with persons, ideas, places, outdoor and athletic activities, personality characteristics, success (social, sexual, etc.), slimness, and other conditions considered desirable by target groups" (National Cancer Institute, 2008, p. 146). As presented in the findings, association with desirable outcomes, was the theme

predominantly employed in e-cigarette advertisements. Consequently, e-cigarette users were portrayed as rebellious, having fun, taking risks, stress free, attractive in appearance, in addition to other desirable associations. Such desirable outcomes are similar to those traditionally seen in tobacco cigarette advertising such as Marlboro's long-standing campaign, which associates smoking with its iconic image of an independent, mature, and rugged cowboy (Federal Trade Commission, 1968). Furthermore, Virginia Slims' appeal to female liberty, slenderness, and success is another fundamental example of how e-cigarettes are comparable to traditional cigarette advertising.

Emerging Themes in E-Cigarette Advertising

In addition to the major themes associated with tobacco companies, researchers identified three emerging themes: convenience, affordability, and innovation. Themes were identified through frequency of key words related to the matter. For example, convenience often associated e-cigarettes with the ability to smoke anywhere, any time, and in the presence of whomever. Affordability characterized e-cigarettes as cost-effective and as a cheaper alternative to traditional cigarettes. Most interestingly, e-cigarettes were portrayed as innovative, high-tech, trendy, or representative of modern society.

Analysis of Advertising Appeals Targeting Adolescents

A secondary purpose of study included identifying the message strategies e-cigarette companies are utilizing in their advertising to potentially market to adolescents through specific appeals to psychological needs.

As the researchers examined the sample, they thoroughly examined how the major themes presented in the advertisements could appeal to the psychological needs of adolescents.

According to the National Cancer Institute (2008), previous research demonstrates that tobacco companies researched youth smoking initiation patterns and developed brand images to appeal significantly to youth by portraying smokers as "attractive, autonomous, accepted and admired, athletic, and at home in nature" (p. 157). The researchers determined that many of these appeals were also present as part of the major themes seen in e-cigarette advertisements.

Popular Appeals

The theme researchers found that could appeal most to adolescents' psychological needs was association with desirable outcomes. The reasoning for this may be due to the fact that association with desirable outcomes contained the largest subset of psychological needs totaling 8 out of the 11 observed. The second most prevalent theme presented was reducing anxieties, which could also be linked with the number of psychological needs attributed to the major theme. Finally, satisfaction contained no direct appeal to adolescents' psychological needs because researchers examined only taste, which is an appeal not mutually exclusive to adolescents.

Interestingly, researchers determined that 9 out of the 11 adolescent psychological needs were presented in over half the sample analyzed. E-cigarette advertisements most often presented e-cigarette smokers as having fun, seeking sensation, and being adventurous. The second psychological need commonly appealed to adolescents' desire to be free from authority and possess autonomy to make their own decisions. Additionally, e-cigarettes were frequently presented as less risky, safer or a healthier alternative to smoking traditional cigarettes thus, reducing imminent health concerns both short- and long-term. Appeals to both genders were prominent throughout e-cigarette advertisements; however, e-cigarette users were most often male and therefore, were presented as rugged, tall, strong, and self-confident. Nearly half of the

advertisements presented potential appeals to peer acceptance, which depicted e-cigarette users as being included in group activities, having strong friendships, or being accepted for their choice to smoke e-cigarettes.

Through cautious examination of adolescents' psychological needs, researchers identified that the major themes commonly used in traditional tobacco advertising were also employed by contemporary e-cigarette advertisements. As a part of the reducing anxieties theme, e-cigarettes were often presented as a healthier alternative to traditional cigarettes through claims of *no tar, no ashes*, *no yellow teeth*, *no secondhand smoke*, and *free from carcinogens*. Also under the reducing anxieties theme, appeals to alleviating boredom and loneliness were seen in advertisements such as blu's national television commercial, which showcases an adult male assuaging boredom and loneliness by smoking while driving and at the office, in addition to smoking inside a friend's tobacco free apartment. Another video from Smart Cigs, shows two bartenders smoking cigarettes as they work and consequently, the bar is empty; however, in the final scene of the advertisement, Herman, the brand's icon, is shown behind the bar smoking an e-cigarette among a crowd of energetic people dancing opposite the bar. In both examples, the viewer is given the impression that smoking an e-cigarette will not only decrease loneliness and boredom but will also do so more effectively than smoking traditional cigarettes.

As part of the association of desirable outcomes, rebelliousness, freedom and independence were some of the most persistent appeals researchers discovered. All three psychological needs are presented in Fin's *Rewriting the Rules* commercial. In this advertisement, the actors are young, hip individuals seen in mature settings such as bars and are presented as "Not breaking the rules, but just rewriting them." Additionally, blu's national television commercial *Freedom* featuring Jenny McCarthy, utilizes a celebrity's testimonial to

equate smoking e-cigarettes with "taking back your freedom" from traditional cigarettes and the restrictions imposed on them.

The most common appeal to adolescents' psychological needs was having fun, seeking excitement and adventure. In 1969, Cullman offered as part of his Congressional testimony on behalf of major American tobacco companies "… to refrain from depicting smokers engaged in sports or other activities requiring stamina or conditioning beyond those required in normal recreation." E-cigarette advertisements such as Volcano's *The Tackle*, present a group of young, energized adults watching a football game together on television. As the game plays out, the friends cheer enthusiastically and when a football player who disappears from the game on television tackles one of the participants who is shown smoking a cigarette, the group becomes even more elated. When the ex-smoker rises to his feet holding an e-cigarette, his friends applaud simultaneously with the television's "touchdown" declaration. Additionally, Smart Cigs *Herman as Cowboy* makes an ironic play on Marlboro's prized advertising campaign, by showing the main character, a cowboy, out in the wilderness sitting bored around a campfire however, he instantly becomes jubilant and is seen dancing after smoking an e-cigarette.

Lastly, peer acceptance and success with the opposite success were found in advertisements such as blu's *No smoking in the elevator*, which communicates that peers and the public in general are more accepting of and more attracted to e-cigarette smokers than traditional cigarette smokers. Another blu commercial, *Freedom*, which was mentioned previously, also touches on the issue of peer acceptance saying, "I don't get the stink eye" because e-cigarettes do not emit ash or odor. Furthermore, McCarthy discusses self-acceptance to an extent, saying "Now that I've switched to blu I feel better about myself."

Although not a psychological need specific to adolescents, satisfaction as it pertains to taste, was presented often in e-cigarette advertisements. Interestingly, flavoring such as *magnificent menthol, cherry crush, and vivid vanilla* may appeal to starter smokers who are hesitant to smoke traditional cigarettes due to harshness in taste. Conversely, flavors such as *classic tobacco* may appeal to current smokers who are seeking an alternative to traditional cigarettes.

Age of Video Participants

In addition to psychological needs, other factors, including the age and gender of the participants featured in the advertisement were examined. Even though just nine of the 61 videos featured participants appearing younger than 18, the researchers believe a strong indication that adolescents are being targeted is not the inclusion of adolescents' rather the inclusion of young adults. Essentially, young adults are what adolescents aspire to be; thus, in utilizing adult participants younger than 30, 86 percent of the examined e-cigarette advertisements are likely targeting adolescents specifically.

Additionally, more than half of the e-cigarette advertisements featured both male and female participants however, in instances where there was only one participant the males were predominant. The researchers believe this may be another strategic ploy by e-cigarette companies as young males are more likely to engage in smoking behavior than their female counterparts.

Marketing E-Cigarettes as a Healthier Alternative to Tobacco

A final basis of the study is to determine if and how e-cigarettes are being marketed as a healthier alternative to traditional cigarettes in advertisements. The findings established that

more than half of the advertisements examined present health-related messages pertaining to e-cigarettes. There are various social cues found within e-cigarette advertisements that are used to directly market e-cigarettes as a healthier alternative to tobacco cigarettes. There are several cues presented within advertising messages that explain e-cigarettes having no tar, no secondhand smoke and no carcinogens. These strategic mentions of the health consequences of smoking tobacco cigarettes are intended as stimuli, which attempt to trigger previously established cues set forth by anti-tobacco campaigns. Additionally, another social cue presented in e-cigarette advertising is the testimonial of a pulmonologist explaining that e-cigarettes are indeed healthier than tobacco cigarettes. As a physician who deals with disease of the respiratory system, society regards pulmonologists as credible experts in their particular field of medicine and as such, using a testimonial from a physician could convince viewers that e-cigarettes are safe to use and pose no harm to individual or society's well-being.

Ironically, the only federal regulation of e-cigarettes is for therapeutic use thus, presenting an e-cigarette as an effective smoking cessation device is illegal in the United States (U.S. Food and Drug Admin., 2014). Interestingly, the researchers found that e-cigarettes were often marketed as healthier and safer alternatives to tobacco cigarettes. Consequently, these claims are unwarranted as there is no formal research proving that e-cigarettes are indeed a healthier alternative.

Manipulating Anti-Tobacco Social Cues

The most commonly communicated messages compared the known health consequences of traditional cigarettes essentially to the unknown health risks of smoking e-cigarettes. As a result, 65 percent of advertisements presented a visual or auditory representation of tobacco

cigarettes and ironically, 62 percent of advertisements represented tobacco cigarettes in a negative manner highlighting the established health risks and consequences. In particular, one commercial by Smoke 51 went as far as utilizing a pulmonologist's testimony in its advertisement to attest to the safer nature of e-cigarettes when compared to traditional cigarettes.

"An average tobacco cigarette in addition to the nicotine contains over 4,000 cancer-causing elements also known as carcinogens. The Smoke Fifty-one product contains zero cancer causing elements, in other words no carcinogens. Secondhand smoke from tobacco cigarettes has been proven to cause cancer in non-smokers. Smoke51 does not produce any secondhand smoke in the traditional sense. It only produces harmless vapor… which have been deemed non harmful by the FDA" (Panarielli, 2009).

According to Dr. Panarielli's testimonial in the Smoke 51 advertisement, "[The e-cigarette] is a much better alternative [my patients that already smoke] than getting their nicotine from tobacco cigarettes." These specific claims made by the pulmonologist is applicable to the Health Belief Model and the messaging that may influence patients perceived susceptibility, perceived severity, perceived benefits and barriers through the marketing of e-cigarettes as a healthier alternative.

However, in lieu of the assertions of e-cigarette companies that their products are less harmful than traditional cigarettes, recent European studies demonstrate that although e-cigarettes emit fewer toxins, both when inhaled and exhaled into the air around the smoker, they are not completely emission free (Schober, W. et. al., 2013; Czogala, J. et. al, 2013); therefore, unknown risks remain with e-cigarette emissions.

Researchers believe that e-cigarette companies may be exploiting these claims based on loose policies regarding the censorship of online content. Consequently, e-cigarette companies

are currently able to promote these messages directly and indirectly to all publics. Therefore, without any age restrictions, adolescents may be more likely to be exposed willingly or unwillingly to the messages that e-cigarettes are communicating online. As a result, this may be a concern worthy of attention from the public health community and society at large.

Relating the Findings to Previous Research

The findings presented here cannot agree or disagree with previous studies because e-cigarettes and their advertising have not been studied before from a communication perspective. This study presents new information that could lend support for the federal regulation of e-cigarettes and the tactics utilized to market them, particularly through online channels such as YouTube and other social sharing platforms that are frequented by adolescents and young adults. Finally, the findings of this study offer support for classifying e-cigarettes as a potential danger to youth and the overall well-being of society.

Limitations of Study

Weaknesses of Content Analysis

Despite the latter, this study is not without its limitations. For one, the method of study, a content analysis, is only concerned with meanings, intentions, consequences and context (Downe-Wamboldt, 1992). Therefore, the findings are not reflective of adolescents' or other publics' perceptions. In lacking perceptions, this study cannot accurately determine the effectiveness of the identified themes and appeals in e-cigarette advertisements. However, content analysis was a necessary first-step for this research as it identified the message strategies employed in e-cigarette advertising, which in turn, allows for future studies measuring awareness

and effectiveness of the identified messages. Likewise, because a content analysis cannot test causal relationships between variables, this study cannot effectively link youth exposure to e-cigarette advertising to smoking initiation or continued consumption, and the researchers cannot infer such relationships exist.

Other challenges stem from methodology including the fact that there is no 'right way' of conducting a content analysis; researchers make judgments based on certain criteria however, what is conceptualized is subjective in nature; therefore, the results may vary among other researchers. Furthermore, the researchers themselves constitute a limitation, as they are all female students of mass media education ranging in age from 23 to 26 thus, they possess a working knowledge of media effects, which may have unconsciously contributed to them identifying an appeal that an adolescent, in particular a male, would otherwise not have detected. However, this limitation was addressed during the research process and in order to circumvent bias and increase validity, three participants outside of the researchers were employed as guest coders, two of which were male, one smoker and one non-smoker.

Limited Sampling Frame

Further limitations stem from the novelty of e-cigarettes in the United States. Consequently, the researchers were also limited in the size of their sample despite exhausting all the available options; thus, the results may differ among similar studies that make use of a larger sample size and utilize random assignment to increase external validity. Additionally, researchers conceptualized the appeals to adolescents' psychological needs as dispersed among the major themes of traditional tobacco advertising however, the satisfaction theme was not analyzed for a need specific to youth publics. Thus, the advertisements utilizing the satisfaction

theme may contain appeals other than taste and could appeal to other psychological needs of adolescents, which were not accounted for in this study.

Suggestions for Future Research

There are various opportunities for future research to expand on the findings presented here including examining other marketing channels such as television, radio and print advertisements. Although lacking in causality, future studies employing content analysis could provide ample means for studying e-cigarette advertising over an extended period of time and may discover trends in society. Furthermore, since the Internet is free from government regulation, additional online channels including social media platforms such as Facebook and Twitter are also worthy of study.

Similar to the limitations of tobacco advertising research, experimental studies are needed to determine if an association exists between adolescents' long-term exposure to e-cigarette advertising and smoking behavior however, such experimental manipulation is both unethical and impractical. Yet, future qualitative studies could add to the breadth of knowledge as established by this study through surveys, in-depth interviews, and focus groups with adolescents and other target publics to better understand the effectiveness of e-cigarette advertising.

In conclusion, the findings of this study will contribute to development of strategic public health communications campaign that aims to educate and inform the parents, educators, and legislators within Alachua County in order to advocate for public policy and change regarding the various issues surrounding e-cigarettes.

CAMPAIGN MATERIALS