

THE IMPACT OF NARRATIVE
ADVERTISEMENT ON PUBLIC
HEALTH-RELATED KNOWLEDGE,
ATTITUDE, BEHAVIOUR,
INTENTIONS, AND BELIEF: A
SCOPING REVIEW

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Declaration

Master of Research

“I, Susan Thapa, declare that the Master of Research thesis entitled The Impact of Narrative Advertisement on Public Health Outcomes Knowledge, Attitude, Belief, Behaviour, and Intentions: a scoping review is no more than 50,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work”.

“I have conducted my research in alignment with the Australian Code for the Responsible Conduct of Research and Victoria University’s Higher Degree by Research Policy and Procedures.

Signature: Susan Thapa

Date: 01/16/2023

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List of Abbreviations

COVID: Corona Virus Disease

PRISMA: Preferred Reporting Items for Systematic Review and Meta-analysis

HIV AIDS: Human Immuno virus Acquired Immuno Deficiency Syndrome

AIDS: Acquired Immuno Deficiency Syndrome

SDG: Sustainable Development Goal

PRISMA-ScR: Preferred Reporting Items for Systematic Review and Meta-analysis for Scoping Review

N/A: Not available

N/S: Not specified

PSA: Public Service Announcement

THE IMPACT OF NARRATIVE ADVERTISEMENT ON PUBLIC HEALTH RELATED KNOWLEDGE, ATTITUDE, BEHAVIOUR, INTENTIONS, AND BELIEF: A SCOPING REVIEW

Abstract

Narrative Advertisement effectively influences viewers' knowledge, attitude, behaviour, intentions, and belief. Despite knowing the importance of advertisements in influencing viewers, little has been studied about the characteristics of advertisements that engage and influence health knowledge, attitude, behaviour, intentions, and beliefs. Very few studies have reported on the various characteristics of advertising that influence public health attributes. This scoping review, following the Preferred Reporting Items for Systematic Review and Meta-analysis (PRISMA), aimed to understand the impact of narrative advertisements on health-related behaviours. Out of 9977 papers collected for the study, only nine articles met the inclusion criteria related to health concerns, including smoking, condom use to prevent Acquired Immuno Deficiency Syndrome (AIDS), substance use, and lifestyle health behaviours. The study found that the dose of exposure to the advertisements, the demographics of the population, and the emotional response to the advertisement were the important characteristics of the advertisement associated with the change in health outcomes. Furthermore, the mechanism that drives the change in health-related knowledge, attitudes, beliefs, behaviour, and intention is explored. This work can guide advertisement production by government agencies and non-profit organizations.

CHAPTER 1: INTRODUCTION

The Growing Health Burden

The continuing rise in various cases of common diseases and illnesses like heart disease, mental health issues, and endocrine and exocrine diseases shows that the world healthcare system has faced an unprecedented burden (Quigley et al., 2021a). There is an urgent need for effective health promotion and preventative initiatives. Advertisements are among various health promotion approaches and valuable ways to deliver health messages to mitigate the growing health burden (Harris et al., 2019).

Narrative Advertisement

The narrative advertisement refers to "delivering informative and persuasive messages by binding them with a story for its engaging and facilitating effects"(Lien & Chen, 2013). The study carried out by (Lien & Chen, 2013) provides an elaborative view of how story telling persuades the listeners. The mechanism behind the persuasiveness of story through transportation is delineated. Likewise, the research investigates about the persuasion process and mediation effect on the viewers after watching advertisements. Narrative advertisements include anecdotal persuasion, which refers to creating advertisements based on anecdotes or stories rather than statistical evidence-based persuasion (Chen & Bell, 2021). Narrative advertisements have several benefits over non-narrative advertisements in influencing human health (Kim et al., 2017). The study carried out in the past have found that narrative advertisement are more persuasive and brings a desired change in health related knowledge and behaviour than that of non-narrative advertisements (Bekalu et al., 2018).

Advertisement and Health Promotion

Many people access mass media (Anwar et al., 2020). A statistics report on mass media consumption in Australia shows that there are as many as 22.82 million internet users in Australia, which is 89 percent of the total population (Department, 2022). A study by Young (2018) and his colleagues found that mass media can be helpful in reducing the consumption of alcohol among the adult population in Australia (Young et al., 2018). Therefore advertisements (including online advertisements) are an effective medium to disseminate health information to bring change in health-related knowledge, attitude, belief, intention, and behaviours.

Importance of Narrative ads to improve health:

Narrative advertisements are useful to promote healthy lifestyles and ultimately improve the health of people (Kang et al., 2020a). In a recent study, some substantial evidence has been gleaned using meta-analysis that showed that narrative advertisements showed a positive impact on human behaviour (Shen et al., 2015a). Likewise, other studies carried out in the past have shown that narrative advertisement brings a change in knowledge, intentions, and attitude. However, no study has been carried out in the direction in which advertisement brings a change in knowledge, behaviour, attitude, intentions, and belief together.

A study carried out by Abioye et al., (2013) showed a positive impact of narrative advertisements on intentions to perform physical activity among adults after watching narrative advertisements (Abioye et al., 2013). Narrative ads also bring changes in smoking habits and alcohol consumption (Collins et al., 2016, Brewer et al., 2016). However, there is no systematic review and scoping review that shows the impact of narrative ads to impact health outcomes.

Aims

This thesis aims to explore the characteristics of narrative advertisements that successfully influence health behaviors, knowledge, attitudes, intentions, and beliefs among viewers. The research also seeks to provide a comprehensive overview of the breadth and outcomes of studies employing scripted, advertisement-based narratives to facilitate the acquisition of health beh

The research will inform the production of guidelines to produce advertisements to influence viewers' health-related knowledge, attitudes, beliefs, behaviors, and attitudes.

Research Questions

The primary research questions are:

What are the characteristics of narrative advertisements that impact health-related; 1) knowledge; 2) beliefs, 3) attitudes; 4) intentions; 5) behaviors?

What are the mechanisms driving changes in health-related; 1) knowledge; 2) beliefs, 3) attitudes; 4) intentions; 5) behaviors?

CONTRIBUTION TO KNOWLEDGE AND STATEMENT OF SIGNIFICANCE

Contribution to Knowledge

Despite Governments worldwide investing billions of dollars each year in health promotion, the incidence of non-communicable diseases is steadily increasing (e.g., diabetes, and cardiovascular diseases;) (Halpin et al., 2010). Narrative advertisements can play a significant role in promoting healthy lifestyles (M. A. Wakefield et al., 2010a). For example, Wakefield et al. (2010) study has shown that advertisements can promote public health by encouraging viewers to follow healthy behaviors (M. A. Wakefield et al., 2010a). The impact of advertisements as a tool to promote health can be maximized by developing guidelines to produce efficacious narrative advertisements. This research will identify the various characteristics of narrative advertisements that have the capacity to increase the potential for impact on health-related knowledge, attitude, behaviours, intentions, and beliefs and could be useful in altering poor health habits.

Statement of Significance

We seek to improve the quality, efficacy, and impact of advertisement-driven content to promote public health outcomes. The innovative approach to encouraging healthy lifestyle behaviors aligns with how people consume information (e.g. through visual media). The study will identify the body of evidence that demonstrates positive changes in health behaviors following exposure to narrative advertisements targeted health issues. The research will inform the development of a framework and may contribute to the establishment of a framework to produce efficacious advertisements. By understanding the specific characteristics of advertisements that influence people to change their health-related knowledge, attitude, beliefs, behaviors, and intentions, the efficacy of advertisements can be improved. The research will help promote Goal-3 of the United Nations (UN) “Good Health and Well-being of Sustainable Development Goals (SDGs)” by increasing the quality and efficiency of advertisements (Hák et al., 2016; SDG, 2019). For example, if an advertisement includes content that can potentially change the attitudes, behaviors, and intentions of the viewers towards smoking or drinking alcohol or any other poor health choice or bad habits, it can increase reduce early mortality among viewers, promote healthy culture in

society, and make a greener mother earth, which will ultimately encourage sustainability (Droogers et al., 2020).

Justification of the Study

The result obtained from the screen-based and scripted advertisement will inform the production guidelines to produce narrative advertisements that will impact health-related outcomes. Therefore, studies that do not include screen-based scripted advertisements were out of the scope of the study.

Screen-based scripted advertisement is widely viewed by audiences. Screen-based scripted advertisements include advertisements produced on television, drama, mobile phone, tablets, etc. The potential market for advertisements to impact health outcomes is huge.

Thesis Composition

In the upcoming chapters I discuss the following:

Chapter 2 is a literature review. In this chapter I explore narrative advertisement and health promotion, and theories that are relevant to change in health outcomes. I discuss relevant examples of narrative advertisements that have been shown to bring positive outcomes in health-related knowledge, attitude, behavior, belief, and intentions.

In Chapter 3 I outline the Methodology used to address my research questions, which follow the Preferred Reporting Items for Systematic Review and Meta-analysis for Scoping Review (PRISMA-ScR) guidelines.

In Chapter 4 I present my results of the various characteristics of narrative advertisement that influence public health outcomes and the various mechanisms that impact public health related outcomes.

In Chapter 5, the various characteristics of narrative advertisement and mechanisms of change in health-related outcomes are discussed in detail, including the future implications and considerations

CHAPTER 2: LITERATURE REVIEW

Health Promotion

Health Promotion was first defined at the international health conference by World Health Organization (W.H.O) in Ottawa, Canada. According to the Ottawa Charter: “health promotion enables people to increase control over and improve their health (Kumar & Preetha, 2012). Health promoting initiatives and activities encourage people to engage with the health services available in their community. Health promotion takes a holistic approach and encompasses that health promotion is not solely the responsibility of government and non-government bodies. It proposes that the individual should be taking preventable measures to be healthy (Gallagher et al., 2021, Mittelmark et al., 2008).

According to the research carried out by DiClemente & Raczynski (1999), health promotion is not an individual disciplinary field, but in fact, a multidisciplinary and even interdisciplinary field with a focus for promoting and enhancing health among people (DiClemente & Raczynski, 1999). Apart from being planned, structured and organized activities to promote public health, health promotion activities also influence government to formulate policies and implement planned programs in a structured way to influence environmental, regulatory, organizational, and legislative changes at various levels (Fertman & Allensworth, 2016).

Poor health in the community negatively impacts at micro and macroeconomic levels. Microeconomics is defined as the study of the part or unit of the whole system. For instance: consumer behaviour, product pricing, market, factor pricing, the study of firms etc. whereas Macroeconomics is the study of overall economic phenomenon as a whole rather than its individual parts. For example: national income and output, general pricing level, economic growth, financial system etc. Research carried out by Remes et al., (2020) found that unhealthy lifestyle behaviour is accountable for a reduction of global Gross Domestic Product (GDP) by 15 percent each year worldwide. The research points out that premature death and loss of productivity potential due to poor health are the major factors for a reduction in GDP (Remes et al., 2020). In order to decrease the impact of poor health, the common health promotion measures used by the governments of developed countries are: mass media campaigns and the educating of youths on

healthy lifestyle behaviour from an early age starting from the primary school level (Kumar & Preetha, 2012).

According to Mittelmark et al. (2008), health promotion approaches should include the technique to enable:

- 1) The capacity of the people to evaluate all the programs and policies implemented to promote health;
- 2) Strengthening of the ability of people to take proper action at the local level to implement the programs and policies to reach all beneficiaries of the programs.
- 3) The capacity of the existing healthcare system and facilities provided to the people.
- 4) Support to people to encourage health promoting behaviours and adoption of a healthy lifestyle.

With the evolution of technology, the use of digital media to promote healthy behaviour and encourage a healthy lifestyle is rising (Lee et al., 2018). The use of digital media is one of the most convenient ways for health promotion in the 21st century (Stellefson et al., 2020). Common health promoting approaches using technology includes delivery of messaging or information via the web, mobile phones, online advertisements and narrative advertisement broadcasted during television show (Giustini et al., 2018). However, there are certain limitations to using technology for health promotion. Although digital technology has significant reach, there are still some regions which isolated from the technology due to various factors (Chandrasekhar & Ghosh, 2001). Mostly, they are developing countries where technology is not within everyone's reach. In developing countries, there is a significant difference between people who have access to health care and health promotion facilities and those who do not (Chandrasekhar & Ghosh, 2001). Chandrasekhar & Ghosh (2001) found that those communities which have access to the health care and health promotion facilities tended to live a healthier life than those who did not have access to the health care and health promotion facilities.

Advertisement

Since the inception of advertisement in the 1890s (Myers, 1994), advertisement has been defined in different ways by various people, organizations, authors, and researchers. Hackley & Hackley (2021) gave a short yet meaningful definition of advertisement: 'a paid-for promotional message

from an identifiable source transmitted via a communication medium' (Hackley & Hackley, 2021). Since this time, advertisement has become one of the most effective ways to reach a broad audience to convey desired messages (Ali Shah & Akbar, 2008). Advertisement is mostly used in marketing in the corporate sector (Ilyas & Nayan, 2020). However, with the inception of advertisements in conveying information to the audiences to bring a desired result for health promotion, the use of advertisements has become broader.

The objectives and goals of public health interventions are to influence health related behaviors, which requires impacting attitudes, beliefs, health knowledge, and intentions (Flora et al., 1989). Advertisements can be used to effectively circulate health information to promote healthy behaviors (Lutkenhaus et al., 2020, Wellings & Macdowall, 2000). Accordingly, public health policymakers have started to incorporate theories and principles of marketing and its application in disseminating public health messages via advertisements (Slater & Flora, 2019). Health promotion campaigns promote healthy behavior and intentions among viewers (Flora et al., 1989).

Types of Advertisement

There are numerous ways to categorize advertisements. The current research deals with the impact of narrative advertisements on public health-related outcomes; therefore, for the purpose of this thesis, an advertisement can be divided into two types:

1. Narrative Advertisement
2. Non-narrative advertisement

Narratives, Narrative Advertisement and Non-narrative Advertisement

Narratives are defined as a story or account of different series of events conveyed in the form of a story or stories (Herman, 2009, Lien & Chen, 2013). In a study by Heman (2009), the author delineates the various aspects of narrative including its definition, and various processes including narrative processing, the engagement of people with narratives, storytelling and modes of narration. Ryan (2017) in her book defined narrative as the process of telling a story in an engaging way, which as an effect induces mental images (Ryan, 2017). In her book, she describes narrative as either historical events delivered in the chronological order to the listeners, or lyric poetry, and dreams (Ryan, 2017).

Narrative advertisement is defined as “delivering informative and persuasive messages by binding them with a story for its engaging and facilitating effects”(Herman, 2009). Narrative advertisement refers to the process of conveying a message to the consumer by using storytelling. The major feature that distinguishes narrative advertisement from other advertisements is that narrative advertisement has storytelling (Stern, 1994). Narrative advertisement consists of a structured story with beginning and end, series of events of conflict and resolutions played out by a protagonist. A study carried out by Stern (1994) showed that narrative advertisements have the power to persuade people, engage them, evoke emotions, and can change people’s health outcomes. Other important characteristics that distinguish narrative advertisement from non-narrative advertisement are character, plot, and emotions involved in the narrative advertisement (Deighton et al., 1989a).

Ryan (2007) in his research paper argued that the definition of the advertisement is not satisfactory because the definitions given by the past researchers evaluated the implicit elements only. In his research paper he argues that the definition of narrative should be based on the following:

- Narrative worlds must be situated in time and experience significant changes.
- Some narrative event participants must be intelligent beings with agency.
- Some narrative events must consist of purposeful action by the agents.
- The sequence of narrative events must be causally linked and lead to closure.
- At least one of the narrative events must be asserted as fact for the story world.
- The story must communicate something meaningful to the audience (Ryan, 2007).

On the other hand, non-narrative advertisement refers to a traditional way of delivering a message without any story, plots, and characters involved. Non-narrative advertisement is also called argumentative advertisement (Li, 2021a). The non-narrative advertisement is mainly delivered through question-answer discussion, argument, in the form of conversation describing pro and cons (Y. Huang et al., 2022).

Narrative Advertisement and Health

Of late, narrative advertisement has also been used to promote change in the viewers' health-related outcomes. Successful campaigns such as ‘Tips from the Former Smokers Campaign’ have used narration through graphics and storytelling to engage and influence the viewers and promote good-health behavior among viewers (Skubisz et al., 2016). There are numerous advertisement campaigns

that have used narratives to promote health, however, the field is still evolving. Narrative advertisements have been demonstrated to influence health-related attitudes and beliefs among viewers, compared to the non-narrative advertisement, in a meta-analysis carried out by Freling and his colleagues (2020). Specifically, narrative advertising changed attitudes and behavior related to smoking cigarettes and drinking alcohol more quickly than non-narrative advertisements in adults (Freling et al., 2020). A study conducted to determine the effectiveness of narrative advertisements on attitudes and beliefs toward breast cancer screening among African American women found that narrative advertisements increased persuasion by decreasing counterarguing, which refers to giving strong reasoning, statements, or facts in opposition to an argument in support of an opposing argument, and effects this was related to being transported into the story, in which the women start to think and perform the action to the character they get influenced by and the decreases their ability to reasoning (McQueen et al., 2011, T. Chen & Chang, 2017).

The ‘Tips from former smokers’ campaign,’ was a federally funded campaign by the US government to reduce the number of smokers by showing the first-hand experiences people experienced due to smoking. This campaign depicted the first-hand and second-hand effects of smoking through the graphical presentation, television advertisements, online advertisements, and stories launched by the Centers for Diseases Control and Prevention (CDC) in 2012-18 (Murphy-Hoefer et al., 2018b; Rubin, 2015). This campaign reduced the number of smokers among viewers and is a prime example of a successful narrative advertising campaign aimed at changing behaviors and intentions among viewers (Davis et al., 2017, 2018).

An eight-week-long campaign broadcasted on television, digital and online advertisements in Queensland, Australia, to promote screening of bowel cancer, showed a rise in the number of participants to return the immunochemical fecal occult blood test kits (iFOBT,) which were distributed for diagnosis and collection of samples for bowel cancer. The change in knowledge, attitude, and belief toward iFOBT was brought about after viewing the advertisement (Durkin et al., 2019). Similarly, Worthington et al. (2020), measured the participation of Australians in the National Bowel Cancer Screening Program (NBCSP) to understand the cost-effectiveness of mass media in promoting the NBCSP. This study found that online, television, and other digital advertising are cost-effective techniques to encourage Australians to participate in the NBCSP.

Raza et al., (2021) conducted a study with the primary purpose to evaluate the effects of advertisements filled with expert opinions on the general public about genetically modified goods and showed a positive influence of advertisements towards genetically modified foods. The study reports that people were influenced to choose genetically modified foods as part of their diet. People started preferring genetically modified foods over non-genetically modified foods. The perceived risk was reduced, and a dogma that genetically modified foods are precarious to human health was supplanted with the positive attitude towards genetically modified food (Raza et al., 2021).

A study aimed to examine the differential effects of narrative and non-narrative advertisement in a university setting among 230 university students aged 18-25 years old participants completed in Belgium using a web-based survey method found the skin cancer narrative advertisement 2-4 times more effective in encouraging people to promote health than the control group. Whereas, non-narrative advertisements were only as effective as the control group (Lemal & Van den Bulck, 2010). Another research that was carried out in a university setting also found similar results. In a university setting, 521 undergraduate students of Northeastern University, in the United States a 7-point Likert Scale was used to understand the persuasive effect of narrative and non-narrative advertisements and found that narrative persuasion was effective over non-narrative to bring change in smoking e-cigarettes (Liu & Yang, 2020).

A study carried out by Tseng et al., (2016) to find how narrative and non-narrative advertisement works on bringing change in health outcomes found that flow and anticipation to change were the major factors among the participants to adopt healthy behaviors (Tseng & Huang, 2016). In another study carried out by Li (2021) showed that mediator plays an important role in the effectiveness of both narrative and non-narrative advertisements (Li, 2021b). However, in the study of Li (2021) carried out in the USA concluded that narrative advertisements were statistically significant in changing sugar consumption behaviour among the participants. Likewise, with organizations investing billions of dollars in Direct to Consumer Pharmaceutical Advertisement (DTC) and Direct to Physician Pharmaceutical Advertisement (DTP) there are chances of fraudulence among medicine buyers in United States and New Zealand. Therefore, it is necessary to increase knowledge about such ignoble activities (Boudewyns et al., 2018). Furthermore, the study carried out by Liu et al., 2022 concluded that both narrative and non-narrative persuasive messages should be promoted in DTCA messages. Furthermore, private companies which sell their

medicine using television advertisements should focus on providing beneficial as well as harmful effects of consuming drugs (Liu et al., 2022).

Non-Narrative advertisement

The major feature of non-narrative advertisement is non-narrative advertisement does not have narration and lacks engaging story-telling approaches to engage and influence viewers. In non-narrative advertisements, informational content is provided (Deighton et al., 1989a). Non-narrative advertising is also called argumentative advertising. In argumentative advertising there is no plots and mostly have arguments, lectures, logical reasonings, disagreements, and are verbose in narrative advertisement (Deighton et al., 1989a, Li, 2021c).

A pre-post experimental field study conducted among 627 American adults, to find the effectiveness of narrative and non-narrative advertisement to prevent pandemic influenza in 2013 found that non-narrative video clip was more effective in comparison to the narrative video clip to changing health knowledge and perceived response efficacy related to the prevention of pandemic influenza and determined whether effects of message format vary across population subgroups (Bekalu et al., 2018).

A study carried out by Nan et al., (2017) to understand the persuasiveness effect of narrative and non-narrative advertisements on the effectiveness of Human Papilloma Vaccine (HPV) on participants towards public service announcements about vaccine effectiveness showed that narrative advertisements which were delivered through audio and texts were less effective in comparison to the non-narrative advertisements showed to participants of the study (Nan et al., 2017).

Theories Underlying the Efficacy of Narrative Advertisements

Transportation Theory:

According to the transportation theory, “transportation into a story is a distinct mental process, an integrative melding of attention, imagery, and feelings” (M. C. Green et al., 2004). The transportation theory postulated by Green & Brock (2004) states that when a person gets

transported into a story, the person loses the consciousness of the present time, starts to imagine like the protagonist shown and starts to emulate how the protagonist works.

Green and Brock describe transportation into a narrative as a pleasurable state where the person does not argue with the message presented. In this state, the viewer is more likely to accept the messages embedded within the narrative. In this regard, transportation into a story reduces counterarguing (Green & Brock 2000). The Cambridge Dictionary defines counterarguing as "an argument against another argument, idea, or suggestion" (Cambridge, 2022). A study by Polichak and Gerrig (2002) concluded that a person transported to a story starts losing consciousness of time and thinks about the topic for a long time (Polichak & Gerrig, 2002a). Recent research has shown that narrative advertisements can transport viewers into a story and change health-related knowledge, attitudes, beliefs, behaviors, and intentions (Deng et al., 2022a; Seo et al., 2018). According to a study carried out by Escalas in 2007, narrative thoughts, which a person develops in his head after watching a narrative advertisement was the critical factors in transporting a viewer into a story irrespective of the argument and strengths presented in the advertisement (Escalas, 2007). In this study, argument strengths referred to the ability of the advertisement to persuade the viewers about health promotion.

When a person gets transported into a story, the individual gets completely lost in the story losing track of time and leaving the present world behind. Some of the distinct features that occur when a person gets transported into a story are losing track of time, failing to notice events around them, or experiencing strong emotions (M. C. Green & Brock, 2000). Transportation occurs majorly in communication media, including text, audio, video, or any means of transmitting a narrative account (M. C. Green & Brock, 2005). Irrespective of whether the narrative is fictional or real, a person can get transported into the narrative. However, the message should be in the chain of events, usually plots, mixed with the characters and story (M. C. Green & Brock, 2005).

The transportation into the story is the major mechanism for working the various narratives, storytelling, and advertisement, which are generally associated with media enjoyment (Polichak & Gerrig, 2002b). Other studies show that the characters shown in the plot should be identifiable to the audience to bring desired changes in the viewers (Boller & Olso 1991). When a person has a prior knowledge about the character shown in the advertisement, then the character shown is identifiable to the audiences (Barreto et al., 2003). The characters in the plot play a significant role

in influencing the viewers; without identifiable characters, the words and the narration do not influence the viewers (Riedl & Young, 2010)

Social Cognitive Theory

Bandura's Social Cognitive Theory states that personal behavior is motivated by the person they consider to be their role model (Bandura, 2001, Lockwood et al., 2004). The study carried out by Lockwood et al., (2004) evaluated various influencers to bring change in health outcomes. The study found that the negative role models that evokes fear of getting diseases were the more likely factor not to adopt bad habits. Bandura postulated that people try to emulate the behaviors of those they believe to be models, termed observational learning or vicarious learning. Various factors determine whether a person is regarded as a model. For example, the similarity the person finds with the model, the competency of the model in the particular field, and the socio-economic status of the model (Bandura & Walters, 1963). Narrative advertising incorporating social cognitive theory can effectively reach a broader audience to communicate about health-related issues (Kursan Milaković, 2021).

According to the social cognitive theory, a triadic reciprocal structure influences the behavior of a person. The triadic reciprocal structure includes the individual, the environment, and the person's mindset (Combs, 2016). The interaction with the environment is a major factor because a person thinks, feels, and reacts to what's happening in the environment, which ultimately manifests in an individual's behavior (Combs, 2016). Attitude and Behavior of individuals are influenced by the triadic reciprocal structure: individual, environment and mindset. The advertisements we hear, read and feel are components of the environment. If the narrative advertisement is conveyed to the viewers or listeners in convincingly then the advertisement can influence the behaviour of individuals.

Personal efficacy refers to the ability of the person to perform the behaviour necessary to produce specific attainment (Bandura, 1977, 1986, 1997). It is dependent upon several factors including personal willpower, wellbeing of the individual, and experiences.

The important determinants of health, socio-cultural determinants of health, and personal determinants of health are addressed by social cognitive theory (Bandura, 1998). In order to make the health promotion comprehensive, it is necessary to make changes at the societal level rather

than in the individual level. Social Cognitive theory encompasses overall change in society rather than in individual change (Bandura, 1998). Therefore, social cognitive theory addresses important determinants of health. Social cognitive theory is one of the possible theories to be included as the mechanism of working of the narrative advertisement because the plots, and characters shown in the advertisement, induce positive and negative emotions that arise while watching the narratives influence the individual who watches the narratives to get motivated to do various activities as done by his/her role model shown in the narrative.

The concept of behavioral modelling was introduced in the Social Learning theory postulated by Bandura (1962). Behavioural modelling is based on observational learning. The individual tries to copy the person who is considered a role model by the individual (Cooper et al., 2007). The emulation of the behavior is not only limited to an individual, however, the role model can be numerous people at a time. Behavioural modelling is an easy and practical way of teaching learners (Decker & Nathan, 1985).

In that sense, behavioural modelling can be used to promote good health practices. In fact, behavioural modelling has been in use for several years to engage and influence the health behaviour of people. Fear is one of the motivation to change the bad habits (Hoek et al., 2013). Previous studies show that negative role models and fear of getting infected with various diseases was among the motivation to change the bad habits (Moradi et al., 2007). In this scoping review, negative behavioural modelling was used to bring change in health related outcomes. A negative role model in the story usually evokes various negative emotions such as fear of suffering from the consequences of adopting bad habits (Lockwood et al., 2004, Hoek et al., 2013). One RCT study reports that participants who watched a TIPS from former smokers campaign in which the character involved in smoking had to go through the amputation of legs had a higher tendency to quit smoking compared to individuals who did not watch the TIPS from former smokers campaign advertisement (Slocum et al., 2022). Consistent with this, viewers who were reluctant to quit alcohol drinking habit were more likely to decide to change the alcohol drinking habit through the portrayed characters revealing how they had become victims of drinking alcohol, as shown in a pre-post survey study (Veer & Kilian, 2011). The study carried out by Decker & Nathan (1985), and Miltenberger (2004) found that behavioural modelling is effective when the character is famous and identifiable to the audiences (Decker & Nathan, 1985, Miltenberger, 2004).

Self-efficacy

Self-efficacy is defined as the perceived capabilities to perform actions. In psychology, self-efficacy was introduced in Social Cognitive Theory by Bandura (1962), which is described as the major factor influencing human behaviour. Other factors include environmental factors, and role models (Bandura, 1962). Self-efficacy is a personal construct, and it determines whether a person will perform a particular action. The behaviour of an individual is determined by the environmental factor and the role model. The behaviour manifested in the individual is dependent upon the self-efficacy of the individual (Bandura, 1998).

According to the study carried out by Schunk (2012) self-efficacy does not emerge out of nowhere. Self-efficacy is the function of various factors such as performance accomplishments, vicarious experiences, forms of social persuasion, and physiological/emotional indexes (Schunk, 2012). Personal efficacy plays an important role in social cognitive theory. Without awareness and application of good health, poor health habits will lead to various diseases, and ultimately, untimely death. Awareness of healthy habits and a slight shift in lifestyle can bring good health and well-being to people (Heslin & Klehe, 2006). Studies have shown that knowledge should be converted into action to change health outcomes (Maddux & Gosselin, 2012). To change knowledge into action, self-efficacy plays a vital role (Bandura, 1978, Bandura & Wessels, 1994). When a person feeds himself the same knowledge numerous times, the knowledge comes into action (Bandura, 1982).

Identification with character

Narrative persuasion is effective when the character shown in the narrative is identifiable to the audience (Igartua, 2010). When the audience identifies with the character shown in the plot, the likelihood of the audience pursuing various activities done by the role model increases (Basil, 1996). In a study conducted by Basil (1995) to evaluate the effect of celebrity announcements on the behavior of the participants towards HIV/AIDS used regression analysis on 391 students from different universities in the western part of the United States showed that the announcement made by a popular celebrity of 1990s Magic Johnson that he had contracted HIV AIDS acted as a strong advocacy towards the safe sex behaviour among youths (Basil, 1996, Brown & Basil, 1995). impact on college students attitude and behaviors towards HIV AIDS (Basil, 1996). Likewise, the

announcement increased the awareness about the HIV AIDS and people started to communicate freely about HIV AIDS. The identification of the celebrity in the announcement made people perceive the unsafe sex as their own risk of contracting HIV AIDS (Basil, 1996) .

How does Narrative Advertisement Works?

Various theories have been postulated to understand how narrative advertisements influence audiences (M. Green et al., 2019). Various research carried out in the past has shown the following reasons for the working of narrative advertisement.

- 1) Information Processing
- 2) Emotive Responses
- 3) credibility

Information Processing

Human brains are hard-wired to process information in the form of stories (W. F. Fisher, 1989). Stories, plots, and characters are the central aspects of the narrative advertisement (Boller & Olson, 1991). When a person hears a compelling story, such a story is remembered for more extended periods (Green & Brock, 2004). Green & Brock (2004) explained the major reason for an extended period of a story remaining in the memory is due to the formation of mental images. When a person hears compelling stories, the person tries to form various mental images related to the stories, the tendency to link the stories told to the person also increases, and the likelihood of a person being transported into the story increases. In the process of being transported into the story, counterargument with the story decreases (Fisher, 1989). It's also because emotional stories activate the amygdala in the brain and the amygdala is situation right next to the hippocampus which is responsible for memory (Wallentin et al., 2011).

The study carried out by Escalas, (2003) shows that the narratives which are shown in the form of picture induces mental imagery in the viewers which lead to the transportation in to the story (Escalas, 2003). Various studies have shown that the person starts to simulate the stories, pictures or the influencing images which impact the person, the phenomenon is called mental simulation. Mental simulation is defined as “the cognitive construction of hypothetical scenarios or the reconstruction of real scenarios” and “the imitative mental representation of the functioning or process of some event or series of events” (Taylor & Schneider, 1989). All the phenomenon that’s

happens through mental simulation leads to the formation of various stories in the human brain. Narratives coupled with the visual effects shown in the advertisement are the major factor for inducing the mental simulation (Coker et al., 2021).

Emotive Responses:

Emotive Responses refer to the emotional responses that arise by watching a narrative advertisement. Previous research has shown that narrative advertisements bring emotional responses (Escalas, 2003a, Deighton et al., 1989b). Research carried out in the past has shown that narrative advertisement, in comparison to non-narrative advertisement induces more positive cognitive responses, positive emotions, and positive outlook toward the messages (Escalas, 2003a, Chang, 2009, McQueen et al., 2011). Positive emotions and responses towards the narrative in an individual is brought by the engagement with the narratives (M. C. Green et al., 2008). In a pre-post study carried out among 115 undergraduate students to measure sympathy and empathy among the participants, narrative advertisements evoked sympathy and empathy towards the character shown in the advertisement and ultimately generated positive responses toward the advertisements shown in the study (Escalas & Stern, 2003).

Various emotions that arise while watching or listening to a narrative advertisement can transport viewers into the story (Kang et al., 2020b). An experimental study conducted among 300 participants to assess the impact of radio advertisements found that the advertisement in which a fictitious brand of luggage was promoted evoked positive emotions towards the narrative advertisement, which led to discussions about the advertised product among peers (Kang et al., 2020b). A meta-analysis on the 76 research papers collected that fitted the eligibility criteria was conducted to find the consequences of transportation in the story found that affective and cognitive responses, beliefs, attitudes, and intentions are consequences of narrative transportation (Van Laer et al., 2014). The research carried out by Skubisz et al. (2016) found that the fear of diseases that may arise due to poor health habits is a significant factor for change in health-related outcomes. The previous study carried out by Skubisz et al. (2016), which used content analysis of 122 advertisements published as video, audio, poster, image, and web-banner, found that that advertisement which include emotional content like fear, guilt, humor, and warmth were remembered by the audience for a more extended period (Skubisz et al., 2016).

Credibility:

Credibility of the character shown in the advertisement plays a vital role in engaging and influencing viewers of the narrative advertisement. The credibility of the advertisement has positive cognitive effects on the viewers of the advertisement (Darke & Ritchie, 2007). The message conveyed by celebrities has been shown to have a higher impact on choosing the products of the viewers (Pradhan et al., 2016). In the case of narrative advertisement, stories, plots, and characters are when delivered through credible sources; such messages are persuasive and thus generate less counterarguing among the viewers (M. D. Slater, 2002). The agreement with the messages shown in the advertisement becomes prominent among the viewers. Thus, increasing the credibility of the advertisement can help increase the effectiveness of the advertisement.

CHAPTER 3: METHODS

Scoping Review

A Scoping review is a valuable method for evidence synthesis, mainly for a topic with scattered information in scholarly science. The information from various sources can be used for decision-making (Munn et al., 2018; Pham et al., 2014; Tricco et al., 2018a). There is only one research papers that illustrates the Characteristics of Narrative Interventions and Health Effects. However, the research has lots of limitations. Some major limitations such as the study has evaluated the characteristics of advertisements only (De Graaf et al., 2016). However, this scoping review is broad and focuses on characteristics and mechanisms that bring change in health outcomes. Furthermore, the research carried out by De Graaf et al., (2016) included narratives presented in the print media in the selection criteria, however this research is particularly focused on the screen-based advertisements that engage and influences health outcomes. The major limitation of the study was that the study by De Graaf et al., (2016) was a comparative study and did not enlist major characteristics and mechanisms of advertisements that changes health outcomes.

We can achieve our objectives by carrying out a scoping review because:

1. Various types of evidence available assessing the impact of advertisement on public health-related knowledge, attitude, behavior, intentions, and belief can be identified using the scoping review (Hoffman et al., 2017; McGowan et al., 2020).
2. Some of the major features and knowledge gaps in advertisement use on public health-related attributes can be identified and explored using a scoping review (Tricco et al., 2018b).

Protocol

The review conducted and reported according to the PRISMA-ScR guidelines for scoping studies (Tricco et al., 2018). I followed the five-stage framework outlined by Arksey and O'Malley (Arksey & O'Malley, 2005) .

Eligibility Criteria

I included all study designs, comprising any population, published in English with no year restriction. Studies were required to: 1) have delivered a screen-based scripted, advertisement narrative addressing a health-related condition or issue; and 2) to have assessed changes in: 1) knowledge, 2) beliefs, 3) attitudes, 4) intentions, or 5) behavior related to health. Included formats are narrative advertisements. I excluded short films, feature films, T.V. series and mini-series, testimonials, and unscripted content, including reality T.V. and documentaries

Information Sources

The search was conducted using the following databases: Communication & Mass Media Complete, MEDLINE with Full Text, and APA PsycInfo. All the data were collected in 2020 AD.

Search

A single author searched the literature. The reference lists of identified literature reviews, systematic reviews, and meta-analyses were searched for relevant primary research. The following limiters were applied: Publication type: Academic journal/review, Language: English. The search terms were narrative OR story* OR media OR advertisement OR television OR communicate* AND health OR science OR prevention OR promotion OR behavior OR medicine OR persuade, limited to titles, headings, and keywords.

Selection of Source of Evidences

Two independent authors double screened all titles/abstracts. All potentially eligible full texts were independently reviewed by two review authors, and potential conflicts were resolved, where necessary, by consultation with a third author.

Data Charting Process

Data charting (Arksey & O'Malley, 2005) was undertaken and independently checked using a specifically designed data extraction form. The following data was extracted from all included studies: author, year of publication, study location, study setting, study design, targeted health behavior, study location, participant characteristics, findings, intervention/control condition characteristics, assessment time points, and health promotion strategy.

Data Items

Some attributes like genre, duration of the intervention, if it was produced following a theoretical framework, if it was made using a multi-disciplinary approach, as well as if it was produced with the intent of influencing a health outcome, and assessment times points were extracted

CHAPTER 4: RESULTS

Selection of Sources of Evidence

As shown in the Figure 1 a total of 9977 records were returned from database searches. Only nine met the inclusion criteria. The current scoping review included nine trials of health outcomes related to health concerns, including smoking, condom use to prevent Acquired Immuno Deficiency Syndrome (AIDS), substance use, and lifestyle health behaviors.

Characteristics of Source of Evidence

As shown in the Table 1 of the included studies, the majority were carried out in the USA (67%), followed by Germany (11%), Canada (11%), and Australia (11%).

Likewise, three of the included studies were randomized control trials (RCTs), two were cross-sectional studies, two were pre-post studies, one had cross-sectional and pre-post studies, and one used a randomized field trial as the study design to carry out research.

The table 1 shows most of the studies were conducted in the community (n=7), and two were conducted in a university setting. Most of the included studies focused on universal prevention which refers to the measure of delivering the message not limiting to one or two groups but incorporates the whole population as a preventive measure (n=6). Participants in the studies were adults above 18 years old (n=10,986), young people from 11 to 17 years old (n=1154), and university students who were between 18 and 29 (n=158).

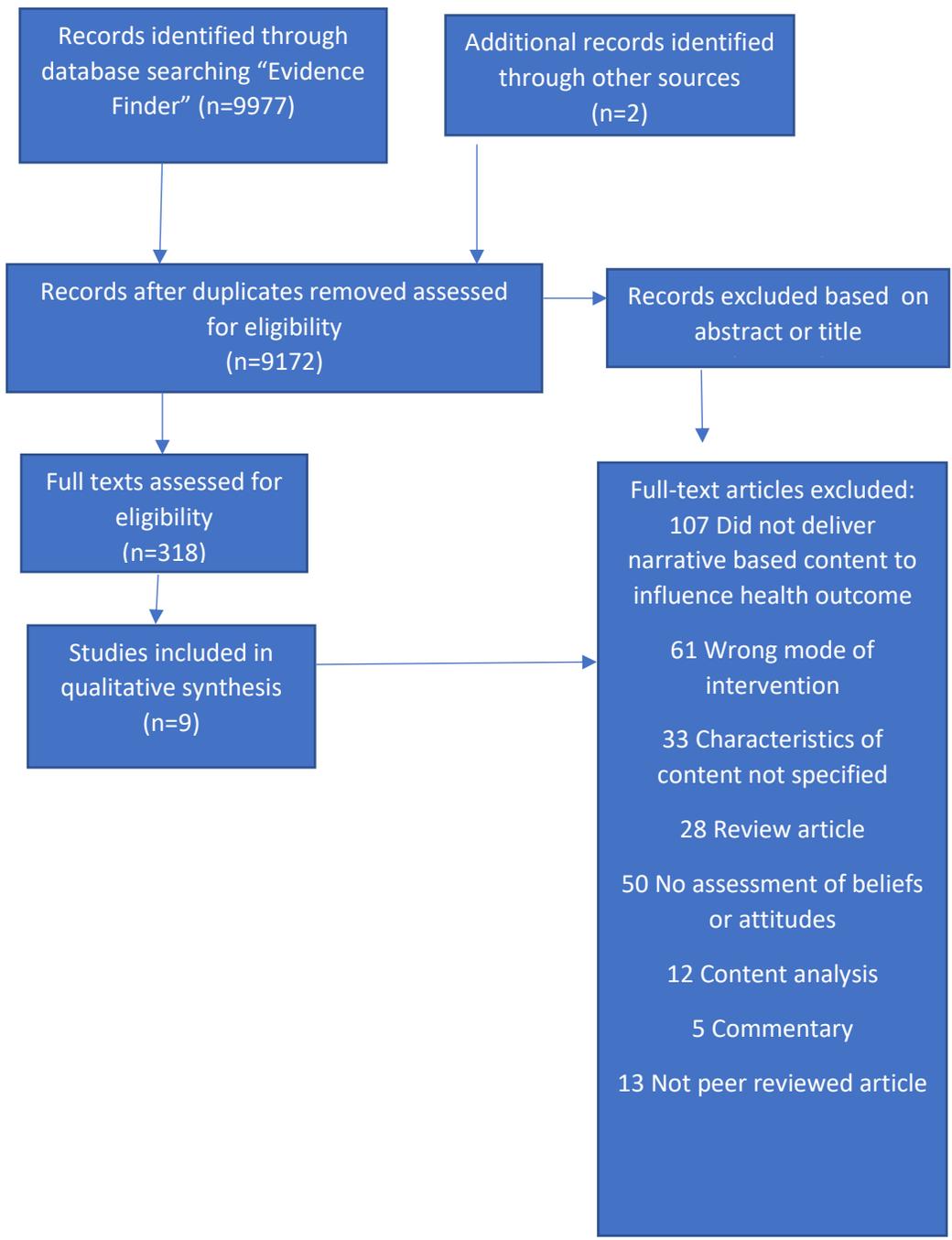


Figure 1: PRISMA FLOW DIAGRAM

Table 1: Characteristics of the Included Studies

Study	Country	Setting	Study Design	Targeted Health Population	Participants	Narrative interventions	Non-narrative interventions	Access time point
Zhou and Shaprio, (2017)	USA	University and community	RCT	Adults	Adults (n=155 [experiment 1], n=230 [experiment 2])	1) Advertisement preceded by self-activation exercise (participants counted first-person pronouns, including “I,” “me,” “my,” and “myself.”); 2) Advertisement preceded by non self-activation exercise (counting words “the,” “a,” and “an)	None	Single time point
Berry, (2009)	Canada	Community	Cross-sectional mixed-method study, Pre and post-study are also included	Adults	Adults (n=1,600)	Advertisement	N/A	Single time point
Kalch and Bilandzic, (2017)	Germany	University	RCT	University students	University students (n=158) (179-21)	Advertisement (HIV prevention with high narrativity) embedded in a high narrativity scene of a short film; 2) Advertisement (HIV prevention with high narrativity) embedded in a low narrativity scene of a short film; 3) Advertisement (HIV prevention with low narrativity) embedded in a high narrativity scene of a short film; 4) Advertisement (HIV prevention with low narrativity) embedded in a low narrativity scene of a short film	None	Single time point
Allen et al., (2014)	USA	Community	RCT	Adults (non-smokers,	Adults (non-smokers, n=863)	Advertisements	None	Single time point

Leas et al., (2015)	USA	Community	Pre-post study	Adults	Adults (n=1,000)	Advertisements	None	Post, FU (1 year)
Brennan et al.,(2014)	Australia	Community	Pre-post study	Adults (smokers ,	Adults (smokers, n=231)	Advertisements (Testimonial)	None	Pre-post, FU (3 wks)
Huang et al.,(2015)	USA	Community	Cross sectional survey	Adult smokers	Adult smokers (n=1,404), in wave 2 survey n=1401	Advertisements (Tips from former smokers)	N/A	Pre-post
McAfee et al., (2017)	USA	Community	Randomized field trail	Adults (smokers ,	Adults (smokers, n=5,733); (non-smokers, n=2,843)	Advertisements (Tips from former smokers, California cohort)	None	Single time point
Kandra et al., (2013)	USA	Community	Cross-sectional survey	Young people	Young people (11-17yrs, n=1154)	Advertisements (true stories)	N/A	Pre-post (one sample), single time point (second sample)

N/A : Not Available

RCT: Randomized Control Trial

Table 2 shows six of the included studies targeted smoking as the health behavior of interest. The target of studies ranged from anti-smoking policy support, quitting intentions, knowledge of health risks of smoking, awareness of tobacco cessation resources, and quitting behavior. The remaining three studies targeted: 1) sexual health behaviors focused on condom use for AIDS prevention, 2) lifestyle health behaviors which included physical activity beliefs and engagement, diet intentions, and habits; and 3) substance use, including the risk of binge drinking.

As shown in table 2 four studies used a drama genre, one used comedy, and the remaining four were testimonials.

Table 2: Characteristics of the Included Studies:

Study	Production	Genre	Duration	Produced following theoretical framework	Propose on the impact of the health outcomes	Protagonist purposefully selected to be identifiable to the targeted health outcomes	Focus	Audience	Multi disciplinary approach
Zhou and Shaprio, (2017)	Professionally produced	Drama	50 seconds	No	Perceived risk of binge drinking	Yes: Featured a college-age White male	Education	Adults	NS
Berry et al, (2009)	NS	Comedy	NS	No	1) Physical activity beliefs; 2) diet intentions; 3) Physical activity engagement; 4) Fruits and vegetables intake	No	Education	Adults	NS
Kalch & Bilandzic(2017)	Professionally produced	Drama	Under 10 min	Yes: advertising intrusiveness (Edwards et al., 2002)	Condom use (AIDS prevention)	Yes: Target adolescents and young adults	Education	Young people	No
Allen et al., (2014)	NS	Drama	NS	No	Anti-smoking policy support	No	Education	Adults	NS
Leas et al, (2015)	Professionally produced	Drama	30 secs	NS	Quitting Behaviour	NS	Education	Adults	No
Brennan et al., (2014)	NS	Testimonial	30 secs	No	1) Quitting smoking intentions; 2) smoking behaviour	NS	Education	Adults	NS
Huang et al., (2015)	Professionally produced	Testimonial	30 secs	NS	1) Knowledge of health risks of smoking; 2) awareness of tobacco cessation resources; 3) quitting behaviour	Yes: real people, not actors	Education	Adults	No
McAfee et al., (2017)	Professionally produced	Testimonial	30 secs	No	1) Quitting attempt and intentions; 2) knowledge and communication	Yes: real people, not actors	Education	Adults	No

					about health risks of smoking				
Kandra et al., (2013)	Professionally produced	Testimonial	NS	NS	Smoking engagement	Yes: real North Carolinians	Education	Children/Young people	Yes: The best practices in youth tobacco prevention advertisements report compiled by the University of NC Tobacco Prevention and Evaluation program-guided advertisement development

NS: Not specified

Health Knowledge Acquisition

As shown in Table 1 two studies assessed the impact of an advertisement on health knowledge. In a cross-sectional survey of 1404 adult smokers from the United States of America (USA), those who recalled seeing testimonial-based advertisements from former smokers, which included graphical representation and emotional testimonials on how smoking affected the smoker’s life and encouraged other smokers to quit (‘Tips’ advertisements) were more likely to show increase in knowledge of the health risks associated with smoking, such as amputation (Huang et al., 2015).

Similarly, a randomized field trial carried out comprising of six different advertisements from the Tips from former smokers campaign (Tips) using a web-based survey among 5733 adult smokers and 2843 non-smokers focused on smoking behavior found that non-smokers in higher-ad exposure regions had better knowledge of smoking-related diseases (McAfee et al., 2017).

In the study, three risks were depicted in three of the 2013 Tips advertisements. One ad featured a person with diabetes explaining his blindness in one eye and a leg amputated due to smoking-related complications. Another advertisement featured people undergoing amputations due to Buerger’s disease, a disorder exclusively linked to smoking. The last advertisement featured a man showing the scar on his chest from a heart attack caused by smoking. The advertisements involved in the two above-discussed studies were professionally produced and included testimonials from smokers (L.-L. Huang et al., 2015; McAfee et al., 2017).

Mechanisms of Action For Changes In Health-Related Knowledge

Dose and Health Knowledge Acquisition

McAfee et al.'s (2017) study reported that a higher dose of exposure to anti-smoking advertisements was associated with a higher number of quitting attempts among viewers. Higher dose refers to the higher number of times of exposure to the advertisement.

Demographics of the Target Audience and Health Knowledge Acquisition

McAfee et al.'s (2017) looked at the impact of demographics on knowledge acquisition after viewing an advertisement addressing a health issue (McAfee et al., 2017). The study reported that African-American smokers had a higher number of quit attempts compared to other ethnic groups, i.e., white, black, and Hispanic people, in areas where media consumption was high compared to the market where media consumption was low. Hispanic smokers had a higher tendency to quit smoking although statistically insignificant in areas where media consumption was high. The study also revealed that smokers who had attended college but did not graduate had higher quit attempts in areas where media consumption was high .

Transportation

Health knowledge acquisition was positively impacted by watching the earlier described Tips from former smoker campaign (Tips) advertisements (L.-L. Huang et al., 2015). Individuals involved in the study were transported by watching the advertisement. According to MC Green, Transportation theory describes the tendency of narrative consumers to “travel” or be mentally drawn into the reality described in a narrative, as well as the outcomes associated with this experience of narrative immersion(M. Green et al., 2019). The transportation of the viewers into the story, which showed the amputation of the legs of the protagonist due to smoking, increased the knowledge of the possibility of amputation due to smoking among viewers (L.-L. Huang et al., 2015).

The Randomized Control Trial (RCT) study assessed the impact of transportation on knowledge acquisition after viewing the advertisement and found that greater transportation was associated with more attempts to quit smoking, among US adult smokers (L.-L. Huang et al., 2015).

Health-related Behavior

In the scoping review, five studies assessed the impact of advertisements on health-related behavior. Out of the five studies, two used a pre-post study design, two used a cross-sectional study design, and one used a randomized field trial. The targeted health issue of all five studies was smoking behavior.

The targeted health outcome of the study conducted by Leas et al. (2015) was quitting smoking (Leas et al., 2015a). Similarly, Brennan et al. (2014) targeted smoking behavior as the targeted health outcome of the study (Brennan et al., 2014). Likewise, the targeted health outcome of Huang et al. (2015) was quitting smoking, whereas McAfee et al. (2017) used quitting attempts and intentions, knowledge, and communication about the health risks of smoking as the targeted health outcomes. Kandra et al., (2013) used smoking behaviors as the targeted health outcome of the study.

Mechanisms of Action For Changes In Health-related Behaviour

Dose and Health Related Behavior

A randomized field trial carried out in the community setting in the USA looked at the impact of dose of exposure to the earlier described Tips from the former smokers advertisements found a higher amount of media exposure was associated with a higher number of quit attempts among African-American viewers (McAfee et al., 2017).

Emotional responses
Californian adult smokers who participated in the study watched the advertisement in which a girl discussed her negative experiences with tobacco. In the advertisement, the girl shares her negative experience of smoking after developing a hole in her throat due to a long history of smoking. The smokers recalled and remembered the advertisement. Likewise, the study found at follow up a higher probability of making a quit attempt among the participants after watching the advertisement (Leas et al., 2015a, p. 201).

Demographics of the Target Audience

Out of five studies, only one looked at the impact of demographics on changes in health-related behavior following exposure to health related advertisements. The study was carried out in a community setting using a randomized field trial in the USA, using the Tips from the former smokers campaign earlier described (McAfee et al., 2017). In places where the media consumption

was relatively higher African-American smokers had higher quit attempt incidence compared with areas where media consumption was low. Higher tendency to quit smoking was higher among Hispanic smokers also. Likewise, smokers who had attended college but did not complete college had higher quit attempts in the higher dose market than in the standard dose market.

Health Risk

A pre-post study which included in the community setting in the USA, which included 1000 participants and targeted quitting behavior among smokers, showed the advertisements in which a girl describes tobacco industry trapped her into smoking at the early phase of her life. Due to smoking, the girl develops a stoma in her throat and urges the viewers not to smoke at all. Personal negative narrative of tobacco had a high impact on quitting smoking. The such advertisement was remembered for a more extended period than other advertisements used in the study (Leas et al., 2015a).

Another pre-post study involving 231 adult smokers from Australia examined quitting smoking intentions and smoking behavior among audiences following exposure to an advertisement in which a girl describes why she does not want to end up like her mother, who died in her early thirties due to lung cancer because she started smoking at the age of ten. This study found that the viewers of the advertisement had a positive change in their intentions to quit smoking and change in behaviour towards smoking (Brennan et al., 2014).

A cross-sectional survey including 1400 American adults in a community setting evaluated knowledge of health risks of smoking, awareness of tobacco cessation resources, and quitting tobacco behavior using earlier described Tips from the former smokers campaign and showed an increase in awareness of tobacco cessation and dangerous consequences compared to the baseline among the participant of the study (L.-L. Huang et al., 2015). However, the study did not evaluate quitting behavior for higher number of days due to the short span of the research, and only 19 out of 1404 people stop smoking for more than 30 days (L.-L. Huang et al., 2015).

A randomized field trial that involved 5733 smokers and 2483 non-smoking American citizens assessed the impact of Tips from the former smokers campaign and found effective in changing smoking behavior, knowledge about the health risks of smoking (McAfee et al., 2017)

A cross-sectional survey involving 1154 young American people aged 11-17 was assessed to find smoking engagement. The study showed that awareness of the advertisements was associated with decreased odds of smoking and experimenting with cigarettes for at-risk youth (Kandra et al., 2013).

Transportation

Brennan et al. (2014) assessed the role of transportation on smoking behavior and quitting intentions using a pre-post study among Australian citizens. Twenty-six percent of viewers during the study and through phone calls reported being transported into advertisements with testimonials to impart information about the negative consequences of smoking to motivate smokers to quit. Being transported into the testimonials was associated with audiences changing their smoking behavior (Brennan et al., 2014). The change in smoking behavior implies that they either reduced smoking frequency or the participants did not smoke for a few days.

Kandra et al. (2013) used a pre-post study among American citizens in a community setting and showed that 94 percent of viewers who watched Tobacco Reality Unfiltered (TRU) media campaigns and advertisements that featured real North Carolinians telling authentic stories about the severe health consequence of tobacco found the advertisement were convincing to choose to quit smoking (Kandra et al., 2013).

In a randomized field trial, smokers who watched the Tips from the former smokers campaign and were transported into the advertisement showed an increase in attempts to quit smoking compared to those who did not watch the advertisement. There was a high tendency to quit smoking where tobacco consumption was high, whereas the tendency to quit smoking was low in places where consumption was relatively low (McAfee et al., 2017).

A pre-post study carried out among the California smoking cohort in America to evaluate smoking behavior found that smokers who watched an advertisement where a girl developed a hole in her throat due to smoking for a more extended period captivated the viewers'. Those who recalled the advertisement were transported to change their smoking behavior (Leas et al., 2015a).

Health-related Attitude

In the scoping review, three studies assessed the impact of advertisements on health-related attitudes. All three reported that the content impacted attitudes towards substance use, sexual health, and smoking. The duration of each episode broadcasted on television was less than one minute. Two of the three studies were professionally produced, and all three were dramas. Only one advertisement was made using a theoretical framework: that is the advertising intrusiveness framework. In two studies, protagonists were purposefully selected to be identifiable to the target audience. All three studies were created with the intention of impacting health behaviors. All three studies used universal prevention as the level of prevention to be targeted, and only one used a multi-disciplinary approach in creating the content.

Mechanisms of Action for Changes in Health-related Attitude

Dose

No studies looked at the impact of the dose on health related attitudes.

Emotional Response

A randomized control trial in a university and community setting assessed American citizens' perceived risk of binge drinking (Zhou & Shapiro, 2017). This study found that the habit of heavy alcohol consumption increased the tendency to come up with negative evaluations about the Public Service Announcement (PSA) in which a young man was hit by a car as a result of binge drinking. However, activating self-concept, which refers cognitive activation of knowledge about the particular subject matter, while watching the PSA decreased negative evaluations of the PSA among heavy drinkers (Zhou & Shapiro, 2017).

A randomized control trial completed in a university in Germany and evaluating the use of condoms to prevent Acquired Immune Deficiency Syndrome (AIDS) found that placing an advertisement while where young boys try to learn about condoms by putting them on various objects, in a high-narrativity scene, which refers to the narrative with conflict, multiple possible storylines, transitivity of characters, etc. increased perceived intrusiveness, while watching a short film called Red Jacket that served as a context narrative, lowered viewers positive attitudes towards the advertisement (i.e as assessed by questions such as, "I found the ad attractive," "I have a positive impression of the ad," "I found the ad uninteresting" etc.), but not attitudes toward HIV prevention (Kalch & Bilandzic, 2017).

Demographics of The Target Audience

No studies looked at the impact of demographics on the target audience on health related attitudes.

Health Risks

A RCT carried out in the university, and community setting in the USA evaluated attitudes towards alcohol consumption among viewers who watched the advertisement in which a young man is hit by a car due to binge drinking and found a change in attitude towards alcohol consumption among viewers, this was related to higher perceived risk of binge drinking among the viewers after watching the advertisement. The study found that the heavier drinkers were more resistant to the anti-binge drinking public service announcement, whereas binge drinkers experienced were less resistant to anti binge drinking public service announcement (Zhou & Shapiro, 2017).

Another RCT study carried out in a university in Germany evaluated attitudes toward sexual health to prevent AIDS which was introduced while watching film called Red Jacket in a low-narrativity scene, which refers to a scene that does not involve multiple plots, violence, or suspense and was not engaging. A high-narrativity prevention advertisement increased narrative advertisement engagement, which in turn strengthened positive attitudes toward both the advertisement and HIV prevention (Kalch & Bilandzic, 2017). In a narrative scene with a high level of narrativity, viewers were fully focused on the context narrative and less likely to become engaged with a new, complex HIV prevention story that disturbs their concentration while watching the highly narrative show (Kalch & Bilandzic, 2017). In the study, two different advertisements were played. In both advertisements, young boys try to learn about condoms as earlier described.

An RCT study was carried in a community setting in New York to evaluate the negative effect of promoting tobacco at the point of sale (anti-POS advertising) found advertising anti-POS advertising such as mass media useful in discouraging smoking (Allen, Davis, et al., 2015a).

Transportation

An RCT in the university and community setting among American students and citizens assessed whether self-activation refers to the intrinsic motivation to leave the binge drinking habit and affects transportation into storylines (Zhou & Shapiro, 2017). These authors found a nonsignificant

relationship between self-activation and transportation, which indicates that the impact of self-activation on resistance to binge drinking is independent of transportation (Zhou & Shapiro, 2017).

An RCT of German university students explored attitudes towards condom use to prevent AIDS (Kalch & Bilandzic, 2017). This study found that placing the narrative ad in a break of a scene from a narrative film lowered engagement (“I had a hard time keeping my mind on the ad,”) with the advertisement. Placing the advertisement in a break of a low in narrativity scene increased engagement with the advertisement. Therefore, creating rich and engaging stories runs the risk of being ineffective when placed in the wrong context (Kalch & Bilandzic, 2017).

Identification With Character

An RCT completed in a university and community setting involving American students and citizens assessed whether self-activation affects the role of identification (Zhou & Shapiro, 2017). The study used an advertisement involving a 50-second PSA in which a young man is struck by a car due to binge drinking. This study found a nonsignificant relationship between self-activation and identification, which indicates that the impact of self-activation on resistance is independent of identification (Zhou & Shapiro, 2017).

Health-related Intentions

In the scoping review, the study by Brennan et al. (2014) assessed the impact of advertisement on health-related intentions which was professionally produced. In this study, an advertisement that ran for 30 seconds, including negative consequences of smoking, intended to motivate smokers to quit, was created to encourage the audience to quit smoking. In this study, specific groups of people were targeted who were already into smoking. Therefore, we can say that the study used indicated levels of prevention (Brennan et al., 2014). Indicated level of prevention is defined as “strategies that are targeted to individuals who are identified (or individually screened) as having an increased vulnerability for a disorder based on some individual assessment but who are currently asymptomatic” (O’Connell et al., 2009, p. 66).

Mechanisms of Action for Change In Health-related Intentions

Dose

No studies looked at the impact of the dose on health-related intentions. Dose of watching advertisements was not an included factor in the study.

Demographics of the Target Audience

No study looked at the impact of demographics on the target audience. Demographics are irrelevant because the frequency of watching an advertisement was not measured about the health intention outcomes.

Emotional Response

A pre-post study carried out in the community setting among adults in Victoria, Australia, did not find the impact of emotional response to the study (Brennan et al., 2014).

Transportation

In a pre-post study carried out in the community setting in Victoria state among 231 adults, 26 percent of participants had changed their intentions to quit smoking (Brennan et al., 2014). In the study, those participants who viewed the advertisement in which negative consequences of smoking motivate smokers to quit were transported into the storylines, which brought a change in intentions towards smoking. However, the study did not quantify how long the change in intentions to quit tobacco lasted.

Table 3: Summary of the Impact of Narrative Advertisement on Health-related Outcomes

Study	Knowledge	Attitude	Behavior	Belief	Intentions
Zhou & Shapiro, (2017)	N/A	Yes: Heavier drinkers were more likely to generate counterarguments, unrealism judgments, and had more negative evaluations about the advertisement compared to lighter drinkers or nondrinkers.	N/A	N/A	N/A

		<p>Activating self-concept (participants counted first-person pronouns, including “I,” “me,” “my,” and “myself.”) moderated the effects of habitual drinking behavior on participants’ likelihood of generating unrealism judgments and negative evaluations about the narrative advertisement, particularly among heavier drinkers. Self-activation also decreased the perception that the advertisement restricted individual freedom among both heavier and lighter drinkers, which further led to a higher perceived risk associated with binge drinking.</p>			
Berry et al., (2009)	N/A	N/A	No: The advertisements were not associated with physical activity behaviours and fruit and vegetable intake	No: The advertisements did not impact beliefs regarding either physical activity or healthy eating	No: The advertisements were not associated with intentions to visit a promoted website and intentions to perform the healthy behaviors
Kalch, and Bilandzic (2017)	N/A	Yes: In a low-narrativity scene, a high-narrativity	N/A	N/A	N/A

		prevention ad increases narrative ad engagement, which in turn strengthens attitudes toward both the ad and HIV prevention			
Allen et al., (2014)	N/A	Yes: Exposure to the narrative ad was associated with holding a negative attitude towards promotion of smoking at sales outlets and support for a ban on tobacco promotion	N/A	No: Exposure to the narrative ad was not associated with perceived impact of tobacco advertisements on youth smoking	N/A
Leas et al., (2015)	N/A	N/A	Yes: Exposure to the ad was associated with a higher probability of making a quit attempt and a higher probability of being in a period of smoking abstinence for a month	N/A	N/A
Brennan et al., (2014)	N/A	N/A	Yes: At follow-up, 26% of smokers reported that they had changed their behaviour.	N/A	Yes: 18% of smokers showed a positive change in their intentions to quit smoking.
Huang et al., (2015)	Yes: Smokers who recalled seeing a Tips advertisement were more likely to show increases over baseline in knowledge of health risks	N/A	Yes: Recall of Tips advertisements was also associated with greater likelihood of reporting having visited cessation	N/A	N/A

	such as amputation and to be aware of a quitline and cessation website.		websites, having called a quitline, and having made a quit attempt		
McAfee et al., (2017)	Yes: In non-smokers participants had greater knowledge of smoking-related diseases in higher-ad exposure regions.	N/A	Yes: Among smokers, quit attempts rate was higher in higher-ad exposure regions. In non-smokers participants were more likely to talk with family or friends about smoking dangers	N/A	No: Intentions to quit smoking in the next 30 days or 6 months were not significantly different between area with high exposure to quit smoking advertisements and areas with low exposure to quit smoking advertisements
Kandra et al., (2013)	N/A	N/A	Yes: awareness of the advertisements was associated with decreased odds of current smoking and experimenting with cigarettes for at-risk youth	N/A	N/A

N/A: Not available

Table 4: Summary of Mechanisms That Bring a Change In Health-related Outcomes:

Characters	Knowledge	Attitude	Behavior	Intentions
Dose	A higher dose of exposure to anti-smoking advertisements was associated with more quitting attempts among viewers (McAfee et al., 2017).	N/A	A higher amount of media exposure was associated with a higher number of quit attempts among African-American viewers (McAfee et al., 2017).	N/A
Demographics	African-American smokers had a higher number of quit attempts	N/A	African-American smokers had higher quit	N/A

	compared to other ethnic groups, i.e., white, black, and Hispanic people, in areas where media consumption is high compared to the market where media consumption is low (McAfee et al., 2017).		attempt incidence in places where media consumption is high compared with areas where media consumption is low (McAfee et al., 2017).	
Emotional Response	N/A	Public Service Announcement (PSA) among the heavy drinkers decreased negative evaluations of the PSA among the viewers. (Zhou & Shapiro, 2017), Placing an advertisement in a high-narrativity scene increased perceive intrusiveness (Kalch & Bilandzic, 2017)	Higher probability of making a quit attempt among the participants after watching the advertisement (Leas et al., 2015a, p. 201).	N/A
Transportation	Transportation was associated with more attempts to quit smoking, among US adult smokers (L.-L. Huang et al., 2015)	Placing the advertisement in a break of a low in narrativity scene increased engagement with the advertisement (Kalch and Bilandzic, 2017).	Being transported into the testimonials was associated with audiences changing their smoking behavior (Brennan et al., 2014). Advertisement were convincing to choose to quit smoking (Kandra et al., 2013). Those who recalled the advertisement were transported to change their smoking behavior (Leas et al., 2015a).	Participants had changed their intentions to quit smoking (Brennan et al., 2014)
Identification with the characters	N/A	A nonsignificant relationship between self-activation and identification, which indicates that the impact of self-activation on resistance is independent of	N/A	N/A

		identification (Zhou & Shapiro, 2017)		
Health risks	N/A	<p>Mass media campaign could be used to discourage smoking (Allen, Davis, et al., 2015a).</p> <p>Low narrativity scene, strengthens positive attitudes toward both the advertisement and HIV prevention (Kalch & Bilandzic, 2017).</p> <p>Heavier drinkers were more resistant to the anti-binge drinking public service announcement, whereas binge drinkers experienced a negative result (Zhou & Shapiro, 2017)</p>	Advertisement which included health risks were remembered for a longer period of time (Leas et al., 2015; Kandra et al, 2013; McAfee et al., 2017; Huang et al., 2015 ; Brennan et al., 2014)	N/A

N/A: Not Available

CHAPTER 5: DISCUSSION

Through this thesis, I examined the various characteristics of advertisements that engage and influence public health-related outcomes. The major characteristics of advertisements that engage and influence the knowledge and behaviour of smoking among individuals are the high doses of watching the advertisement, which is the higher frequency of watching the advertisement. The demographics of the target audience, majorly the race and ethnicity of the targeted audience, precisely Hispanic and African American smokers were influenced to change smoking behaviour more than White American. Similarly, the emotional response of fear (of developing a hole in a throat and amputation of legs because of smoking) was the major characteristic of advertisements that engaged and influenced viewers to change their smoking behaviour. There are three studies which focused on health behaviours like sexual health, substance abuse and lifestyle health behaviour. I provided a summary of the effects of advertisements on health-related outcomes, mainly knowledge, attitude, behaviour, belief, and intentions. Likewise, I elaborated on various mechanisms that bring change in health-related outcomes. The scoping review found that the transportation theory is the major mechanism impacting the viewers' health behaviour.

Characteristics of Narrative Advertisements

The current scoping review found that the professionally produced narrative advertisement which included testimonials of former smokers impacted the adult smoking behavior and the change in the smoking behaviour of the audiences. However, the review by Allen, Duke et al. (2015), not included in the thesis, found that the youths, not adults, recalled advertisements that included testimonials (Allen, Duke, et al., 2015). Consistent with the findings, the study carried out in three different countries in a controlled environment used telephone calls to assess the various characteristics of advertisements that impact health outcomes and found that the advertisements that included visceral negative or personal testimonials about smoking were appraised more positively by youths and were more likely to be recalled, thought about, and discussed at follow up one week later (M. Wakefield et al., 2003).

The study included in the current scoping review found that youths were more influenced by the advertisement in which genre were dramas (Leas et al., 2015, Allen, Davis et al., 2015). Therefore, future advertisements should include both dramas and personal testimonials of smokers to impact

the health behaviour of youths and adults.

Likewise, the study included in the current scoping review found that professionally produced narrative advertisements, irrespective of the genre, had a high impact on the change in the smoking behavior of the viewers. Consistent with the finding, the study carried out among 155 participants found that the advertisement, which was professionally produced, was shown to the participants, resulting in a decrease in the consumption of alcohol (Stautz & Marteau, 2016). Likewise, viewing professionally produced advertisements increased the searches for weight loss information (Yom-Tov et al., 2018). Therefore, the advertisements should be professionally produced to increase the impact of advertisements on health-related outcomes.

Change in Smoking Behavior As Commonly Reported Health Outcomes

Scientific evidence shows that people who are alcoholics tend to smoke (Batel et al., 1995). Alcoholics tend to be chain smokers (Collins & Marks, 1995, Marks et al., 1997). The study by Hymowitz(1997) showed that the strong predictor for changing smoking behaviour was less alcohol consumption (Hymowitz et al., 1997). The study showed that smokers who smoke more than 25 times a day could not change their smoking behavior (Hymowitz et al., 1997).

Demographics

The scoping review showed that the demographics of the target population are an important factor in impacting health-related outcomes. The study included in the scoping carried out by McAfee et al. (2017) showed African Americans had more quit attempts than White Americans (McAfee et al., 2017). Likewise, Hispanic smokers tended to quit smoking more than White Americans (McAfee et al., 2017). This is consistent with previous work showing that graphics in the advertisement and first-person narrative are highly effective for changing smoking behaviour among Indigenous Australians. In an effort to determine the effectiveness of various advertisements among the Aboriginal and Torres Strait Islander Australians, ten different advertisements were shown to the participants and using the Likert scale, and the perceived effectiveness of the advertisements was measured. The previous study found that the advertisements with graphic representation shown to the native Australian Aboriginal adults were rated high in ranking among the indigenous population (Stewart et al., 2011). The authors found that the major reason for high perceived effectiveness were the graphic representation presented

showing the consequences of smoking (Stewart et al., 2011). The major reason for the high rating of the advertisement might be that graphical representations evoke mental imagery and increase transportation into the story.

The current study findings show that narrative advertisements can influence health behaviour of indigenous groups. The major feature of all indigenous societies is storytelling (Bessarab & Ng'Andu, 2010). The storytelling is an important tradition in African American culture, indigenous Australians and Hispanic Americans (Cannon, 1995, Champion et al., 1999, Gorman & Toombs, 2009). A study carried out by Banks-Wallace (2002) showed that the person who tells stories in the community are considered the most important person in the society (Banks-Wallace, 2002). The study carried out in the past shows that storytelling in African American and indigenous Australians culture empowers people through knowledge about the message delivered in the stories (Bell-Scott & Johnson-Bailey, 1998, Gorman & Toombs, 2009). African American people still consider storytelling as the major tradition (Waites, 2009). Storytelling is also considered as one of the traditional Aboriginal approaches to healing and empowering (Poonwassie & Charter, 2001).

Dose of Watching Advertisement

Numerous previous studies show that the high dose of watching commercial advertisements aimed at promoting unhealthy health behaviour like smoking, drinking alcohol, vaping etc, promotes that health behavior (Zhang et al., 2016, Dixon et al., 2007, Scully et al., 2009). However, a few studies show the positive effect of the frequency of watching advertisements aimed at promoting viewers' health behaviours. The outcome of the scoping review showed that the high dose of watching narrative advertisements is important in changing smoking behaviours among advertisement viewers. A higher amount of media exposure was associated with more quit attempts of smoking among African American viewers (McAfee et al., 2017). The higher dose of watching advertisement impact the mental activities, including thinking, remembering, reasoning and imagination of the viewers (Ambler & Burne, 1999).

Consistent with the finding of the scoping review, a similar result was shown in the previous study carried out by (Murphy-Hoefer et al., 2018a). In a pre-post study carried out by Murphy-Hoefer et al. (2018), among American adults the dose of watching TIPS from former smokers was an

important factor to bring change in health-related outcomes, the higher dose of exposure to the anti-smoking campaign was effective in changing the smoking behaviour among the viewers (Murphy-Hoefer et al., 2018a). The study showed that increasing the dose of advertisements positively affected a reduction in smoking behaviour. Therefore, to increase the effectiveness of advertisements and to bring the desired change in health-related outcomes, the frequency of advertisements should also be taken as an influential factor while making narrative advertisements to bring positive health outcomes.

A high frequency of watching advertisements is highly correlated with the increased effect of the message shown in the advertisement (Mittal, 2009). A non-probabilistic quota sampling was used to find the correlation of watching advertisement with the agreeing of message shown in the advertisement among 300 parents. The study found that the higher frequency of watching advertisement by children increased the demand of the products shown in the advertisement (Mittal, 2009). Plassmann et al., (2007) argues that advertisements work in two ways - first, the immediate responses arise after watching advertisement, for instance a person dialing a number shown in the advertisement and second the advertisements are responsible for changing the mindset and later the behavior of the individual's watching advertisement.

Numerous studies have shown the effect of higher dose of exposure to watching advertisement lead to increase in susceptibility of smoking (López et al., 2004, Henriksen et al., 2010, Gilpin et al., 2007, Weiss et al., 2006). The study carried out by Gilpin (2007) found that the exposure to the higher dose of watching advertisement lead to increase in consumption of smoking among the adults (Gilpin et al., 2007). Different cognitive activities are stimulated after watching advertisements (Plassmann et al., 2007, Edell & Staelin, 1983, Greenwald & Leavitt, 1984) Among many mental effects, mental imagery of the narratives and character shown in the advertisement is the significant cognitive feature stimulated by the advertisement (Mazzocco & Brock, 2006). The individual watching the narrative advertisement starts to put himself in place of the character shown in the narrative and starts imagining various consequences, some individuals try to emulate various actions done by the character shown in the advertisement, the narrative can also affect emotionally to the viewers. While imagining various consequences of the events, copying the character shown in the narrative advertisement, individuals get impacted by the advertisement.

Relevance to Own Life

The current scoping review showed that narrative advertisements which includes a personal negative narrative, were remembered for a longer period (Leas et al., 2015). A pre-post study carried out among the California smoking cohort in America to evaluate smoking behavior found that smokers who watched an advertisement where a girl developed a hole in her throat due to smoking for a more extended period captivated the viewers'. Those who recalled the advertisement were transported to change their smoking behavior (Leas et al., 2015a). Previous authors showed similar outcomes that included the personal negative narrative (Dunlop et al., 2008). A previous study aimed to understand the emotional response to the advertisement carried out by Dunlop et al. (2008) proposed a new theory of understanding how the emotional response bought by the public health advertisement affects health outcomes. The previous study found that different emotions brought by the advertisements which are relevant to own life are discussed among peers, and the discussion brings the repetition of the message in the head. For instance, if the advertisement evokes the fearful thought of smoking, such advertisement is remembered by the audience (Dunlop et al., 2008).

The previous study carried out by Skubisz et al. (2016), which used content analysis of 122 advertisements published as video, audio, poster, image, and web banner found that that advertisement which includes emotional content like fear and guilt were remembered by the audience for longer period of time in comparison to message with humor and warmth (Skubisz et al., 2016). The previous study carried out by Skubisz et al. (2016) showed that the advertisement does not produce the same emotions in all viewers. Similarly, the current scoping review has also shown that the narrative advertisement does not produce the same emotions across all the participants in the study (McAfee et al., 2017). Therefore, the narrative advertisement should include narratives that induce different previously described emotions among the viewers. The advertisement producers should take various factors such as the emotions that are attached among the viewers of the particular place while making the advertisements.

Transportation Theory

The current study found that viewers of the advertisements were transported into the story, and the study showed a change in the smoking behavior of the individuals who watched the advertisement

(McAfee et al., 2017; Huang et al., 2015). The study supports that transportation into a story is an influential factor to change health-related outcomes, which is consistent with Green & Brook's Transportation theory (Green & Brook, 2004). The major implication of the study findings is that people tend to get transported into the story, which most of the time results in a positive change in behavior of the viewers. Therefore, this scoping review supports theory arguing that narrative advertisement should include the narration and plots that induce transportation to bring the desired changes. For the advertisement producers, the narration and plot, that have the potential to bring the transportation among the viewers of that place should be identified first before making the advertisement to maximize the impact of the advertisements.

The scoping review found that highly engaging narratives reduced the counterarguing by inducing transportation and identification with the characters (Zhou & Shaprio, 2017). In the scoping review, the study by Kalch & Bilandzic, (2017) and Zhou & Shaprio (2017) showed that factors such as cognitive engagement, emotional engagement, and generation of imagery influence transportation. The output of the studies is consistent with the Transportation theory, which states that a person starts to emulate the behavior of individuals she or he considers to be a role model (Green & Brook, 2000). Therefore, to reduce counterargument and increase agreement with the narrative, narrative advertisements should emphasize plots that induce emotional engagement, cognitive engagement, and generation of imagery among the viewers to induce transportation.

The study included in the current scoping review supports the argument that telling authentic stories about the severe health consequence of tobacco consumption is convincing to choose among the viewers to quit smoking (Kandra et al., 2013). The study carried out by Kandra found that the advertisement focused on real-life scenario of the smokers were appealing to choose for the youth at risk (Kandra et al., 2013). The previous findings also have shown that telling an authentic story, suspense in the narrative, imagery, and perceived realism are important factors in influencing audience transportation (Green et al., 2004). Therefore, the narrative advertisement should not only include the authentic stories of the severe health consequences health behavior. The authentic stories in narratives should also take suspense, imagery, and perceived realism in producing the advertisements.

The study carried out by Wang et al., (2022) showed that mental imagery is the major mechanism to process advertisements in the human brain and to get influenced by advertisements. Likewise, the study showed that the mental imagery produced by watching advertisement increases transportation into the story and decreases the skepticism towards the advertisements shown (Wang et al., 2022). Moreover, the study carried out by Lien & Chen., (2013) showed that the narrative presented in the story had more impact on the participants than the arguments shown to the participants of the study (Lien & Chen, 2013).

A recent study by Green (2021) concluded that mental imagery, reduced counterarguing, and similarity with the characters, stories plots or causality, emotional engagement were the major forces to get transported and ultimately get influenced by advertisements (Green, 2021).

Social Cognitive Theory

The current scoping review findings are consistent with the Social cognitive theory postulated by Bandura (1986). Majorly the observational learning was prominent features of social cognitive demonstrated by the participants (Kandra et al., 2013). The youths who were of same age group as shown in the advertisement were influenced to change the smoking behaviour after watching the advertisements (Kandra et al., 2013). Consistent with the finding, similar results were shown by the previous study carried out among 3000 individuals in France to evaluate the short term and long term effects of emotional media campaign on smoking cessation, using multiple regression method in the data obtained from six month long longitudinal survey, the fear of developing various disease due to smoking played an important role to change smoking behaviour of individuals participated in the study (Guignard et al., 2018). The implications of the findings are the advertisers should focus on showing same aged group protagonist in the study to engage and influence the health-related outcomes who are identifiable to the audiences. Likewise, the consequences of developing numerous diseases due to smoking and poor health behaviour should also be included in the advertisement to influence the viewers.

Future Work and Considerations

Although the articles that qualify to be included in the scoping review includes theory like Transportation theory and Social Cognitive theory, the scoping review has not included the

important theory in health behavior which is the theory of perceived behavior control postulated by Madden et al., (1992), which is similar to self-efficacy (Madden et al., 1992) . The theory of perceived behavioral control states that the ability of a person to carry out a particular task depends on the person's willingness to carry out the task. For example, if the person thinks he can only work 6 hours a day, 5 days a week, beyond 6 hours a day, he/she might feel lethargic. The whole thinking process of limiting self to 30 hours a week is perceived as behavioral control. Believing that one has control over the behavior is associated with doing the behavior. In the case of health behavior, we can substitute working 6 hours a day with smoking 4 times a day; decreasing the frequency of smoking from 4 to 2 times a day is self-efficacy to decreasing the frequency of smoking as current study has found that no study that qualified to be included in the scoping included perceived behavioral control as the factor influencing health behavior. Therefore, future work should consider and explore the impact of advertisements on perceived behavioral control as the perceived behavioural control is a promising theory to explore.

The major challenge of conveying health messages is to make sure that the advertisement is conveyed in an impactful way. In the scoping review, various papers have shown that the viewers remember those messages relevant to their own life, which evokes emotional responses (Kalch & Bilandzic, 2017; Zhou et al., 2017). Therefore, the future direction is the research is to ensure that the narrative included in the advertisement include those contents which are relevant to people's lives and touch people by showing content that changes their behavior and is more engaging to the audience. In order to make advertisements effective, prior research either using the qualitative methodologies like focus group discussion or quantitative methods using appropriate statistical methods to understand people's emotional attachment and what narratives evoke the feeling of relevance should be done.

Furthermore, one of the studies included in the current scoping review and carried out by Kalch & Bilandzic, (2017) showed that broadcasting advertisements in the middle of the show showed different effects on the advertisement viewers. The viewers remember the high narrative advertisement shown in the low narrative scene. The low narrative scenes refer to the narrative which do not have drama, action, fight, romance, conflict in the scene, whereas high narrative scene consist of conflict, drama, romance, action, fight etc. However, the low narrative advertisement shown in the high narrative scene was not remembered by the viewers (Kalch &

Bilandizic, 2017). Therefore, the context of the advertisement should also be considered as the previous described research in the scoping review found the context as the major factor to impact health outcomes.

The scoping review has shown that demographic factors impact health-related outcomes (McAfee et al., 2017, Kalch & Bilandizic, 2017). Consistent with the scoping review, a similar result was shown in the study carried out by Durkin and his colleagues (Durkin et al., 2009). Most past research on the effects of advertisements on health-related behaviors does not include a consideration of audience demographics as an important factor to impact health-related outcomes (Moyer-Gusé & Nabi, 2010). Although it is evident that most research do include demographic information in current research. Demographic information such as race and ethnicity has not been addressed. Therefore, the future research direction in advertisements to affect health-related outcomes should include consideration around the race and ethnicity of the target audience. Moreover, future research should include demographics and relationship between dose and effectiveness of advertisement. Also, the future advertisement should include all the aforementioned factors while conveying the messages to the audiences to make advertisement effective.

Most of the health outcome included in the study is the change in smoking behaviour. Out of nine studies included in the study, four reported change in smoking behaviour among the viewers. While only one study each included in the scoping review reported a change in alcohol consumption behaviour, lifestyle behaviour, and sexual health. Therefore, the future direction of research should be towards examining the characteristics and mechanisms of narrative advertisement that bring change in alcohol consumption behaviour as well as change in lifestyle behaviour.

Strengths and Limitations

The research proposal was well planned and structured that gave rise to structured research. The strengths of the scoping include: 1) the scoping review is the first of its kind to examine the extent and range of studies assessing the impact of scripted, entertainment-based narrative on health-related outcomes. 2) the scoping review enumerates various characteristics and mechanisms of the narrative advertisement that engage and influence public health related outcomes, 3) the research was carried out following the PRISMA-ScR guidelines and the synthesis of result was conducted

using Arksey and O'Maley (2005) framework, 4) the research has identified that narrative advertisement is useful to cease the additive behavior like smoking and has pointed out future direction of the research.

The major limitations of the study include only two studies included follow-up assessments and only one out of two advertisements were longer than six months, while only one study had a follow-up after three weeks only, which suggests that the study qualified in the scoping review did not examine the longer-term effects of narrative advertisement on health-related outcomes. Some of the facets include the researchers have examined the impact of advertisement on a population level. However, the impact of narrative advertisement is dependent upon the demographics of the target audience and the dose of watching the advertisement. The study identified included minority ethnicity like African American and Hispanics in the scoping review, but did not examine the effect of narrative advertisement on the minority population representative enough to be representative enough to draw a broad conclusion. Likewise, another limitation is that I did not include the quality appraisal of individual trials in the scoping review.

Other limitations include the time frame of the study. As all the data was collected in 2020 AD, another limitation of the scoping review was the scoping review did not include the latest research papers of 2021 and 2022 AD. Therefore, the scoping review could not bring the latest insights after 2020 AD. As the latest research published during COVID-19 shows that the commercial mobile application as the useful method to encourage people in healthy behaviour (Petersen et al., 2021).

CHAPTER 6 CONCLUSION

CONCLUSION

Narrative advertisement is an important way to reach a wider audience to decrease health disparities among people. The research provides valuable work by finding various characteristics and mechanisms of narrative advertisement scattered in various scientific research papers that influence health-related knowledge, attitudes, behavior, belief, and intentions among viewers. The major characteristics of advertisements were genre mainly testimonials and drama brought change in health-related behaviour and knowledge. Likewise, professionally produced advertisement using multi-disciplinary approaches was also the major characteristics of advertisement included in the studies. The study found that narrative advertisement influences change in smoking behaviour of the viewers, which is majorly brought by transportation into the story. Furthermore, the study found that higher dose of watching advertisement promotes change in smoking behaviour among the indigenous communities like African American and Hispanic adults.

In this research, I illuminated mechanisms that drive the change in health-related knowledge, attitude, belief, intentions, and beliefs among the individuals watching advertisements. I envisage that the scholarly work will be instrumental in building the body of knowledge for producing narrative advertisements to improve public health. The results and discussion derived from the scoping review will help formulate the strategy to produce and guide the government health bodies in the future.

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