

GHANA INSTITUTE OF JOURNALISM



**AN ASSESSMENT OF THE ROLE OF MEDIA CAMPAIGNS ON ROAD SAFETY AND
ACCIDENTS IN GHANA**

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**LONG ESSAY SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES AND
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DECLARATION

I hereby declare that this long essay is as a result of my personal research and has not been presented by anyone for any academic award in this or any other university. All references used in this long essay have been fully acknowledged.

I bear sole responsibility for any shortcomings.

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Christine Makafui Ahlijah

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DATE

Dr. E. Malcalm
(Supervisor)

.....

DATE

DEDICATION

To God Almighty do I dedicate this work for enabling me to successfully complete this study and the entire programme Glory be to Him

I also dedicate this work to my family and friends who always encouraged me to strive for higher heights in education.

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ABSTRACT

Mass Media play a very important role in both developed, developing and less developed countries. This report provided an assessment of the role of media campaigns on road safety and accidents in Ghana. Local and international literature was reviewed to ascertain how road safety campaigns by persuades and changes the target behaviours, examine specific channels used to inform/communicate the target audience, determine the effectiveness of road safety campaigns and examine the challenges associated with increasing awareness using road safety campaigns in Ghana.

Three theories that focused on changing knowledge, attitudes, and behaviors were reviewed. These theories were Roger's Protection Motivation Theory, the Extended Parallel Process Model, and General Deterrence Theory. The study revealed that to improve media campaign effectiveness, the following were critical; integrating advertising with other activities (e.g. enforcement), tailoring message content and means of communication to the characteristics of the target audience, and using multiple forms of media outlets including social media for the younger target audience and multiple forms of media to reach the target audience. In the end, the researcher recommended addressing problem behaviours of target audience, better understanding the behaviours of target audience, well-design media campaign, well-executed media campaigns and appropriate duration of media campaign.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Globally, the problem emanating from motor accidents (deaths and injuries) on roads is acknowledged virtually in all countries of the world (Abdul-Rahaman, 2012). Unlike developed economies, transportation is more utilized as a means of transportation than rail, air, and water. Likewise, Ghana, although other transportations networks operate, the majority of the commuters rely on the road as a means of transport (Mends–Brew, Dadzie, Apau Dadson, and Owusu Amoamah, 2018).

Given that humans are almost inadvertently prone to make mistakes and commit violations, human behavior is of particular interest for most road safety professionals. That is where road safety campaigns come in. The mass media have increasingly been used to improve road user behaviors and road safety campaigns in developed and developing economies (Delaney, Lough, Whelan, and Cameron, 2014). The term “mass media campaign” describes public communication campaigns or public education campaigns targeted at improving Ghana's road safety (Delaney et al., 2014).

Together with other 'behavioral' measures (e.g., law enforcement, education, training, and even infrastructure to some extent), road safety campaigns are used as a means of influencing the public to behave more safely in traffic (Hoekstra and Wegman, 2011). It aims at purposefully attempting to either inform, persuade or motivate behavior changes in a broad audience within a given period. “Mass media campaign” refers to a form of advertising, specifically, paid media advertisements explicitly designed for a target concept.

The mass media has revealed that most road accidents are prevalent in developing countries and mainly resulted from the driver, road, and vehicle factors. In Ghana, the assertion is supported by the Motor Traffic and Transport Directorate (MTTD) of the Ghana Police Service report, which indicated that driver error, mechanical failure, and pedestrian action are the significant causes of road traffic accidents (Coleman, 2014). Accordingly, driver attitude, including road courtesy and behavior, driving under the influence of drugs, especially alcohol, seat belts, driver age (teenage drivers and elderly drivers), etc. were identified as the recognized human factors causing road traffic accidents.

Apart from road safety campaigns, the mass media have deployed campaigns in other areas such as cigarette smoking, drug abuse, etc. according to Delaney, Lough, Whelan, and Cameron (2014), there is a wide range of issues related to the strategic design of mass media campaigns, involving the target behavior and audience, message and campaign characteristics, links with enforcement and legislation, and institutional management. Linderholm (2010) reported that the media campaign failed to persuade respondents to quit cigarette smoking. On the other hand, the media campaign evaluated for drug abuse successfully achieved the desired behavior change over three years. The campaign utilized role models as a mechanism of change of attitudes.

According to Mends–Brew et al. (2018), the rate of road accidents is still very alarming despite increased road safety campaigns. It is an acknowledged fact that one of the significant challenges this country is still battling with is Road Traffic Accidents (RTAs). Osei–Kyei, and Chan (2016) revealed that about 2% of the Gross Domestic Product (GDP) is attributed to Ghana's road accidents. The high accident situation in developing countries is critical to examine as are victims killed and injured and the quality of life of the citizens, thus affecting economic and social

development. This colossal sum covers victims' medical expenses, damage to vehicles, and insurance cost, among others.

1.2 Problem Statement

Coleman (2014) underscores the different factors, not limited to poor attitude of drivers (drug use, driver age, seatbelt use and observance of traffic regulations), vehicle and road characteristics and traffic infrastructures have influenced frequent road accidents in Ghana.

Surprisingly, although there are many road safety campaigns, only a fraction of such campaigns are formally and thoroughly evaluated by organizations and audiences. Despite this dearth of evaluation results, several reports on the subject indicate the potential effects of road safety campaigns. Peden et al. (2014) revealed that road safety campaigns could influence behavior when used in conjunction with legislation and law enforcement. However, the report also asserted that “... when used in isolation education, information and publicity generally do not deliver tangible and sustained reductions in deaths and serious injuries”.

Specifically, Koranteng (2018) reported significant hotspots incidents on the roads in Ghana. These included the Accra-Kumasi highway, Tema motorway, Accra–Aflao-Togo border, Accra-Cape Coast through to Takoradi, and Kumasi –Techiman-Kintampo through to Tamale highways. In the Greater Accra region, the George Bush motorway alone experienced over 300 deaths since the commissioning in 2011, while the Tema motorway continues to record multiple deaths every year (Koranteng, 2018; Gyimah, 2020).

The problem of this study lies in this question, *are road safety campaigns able to deliver tangible and sustained reductions in road accidents (deaths and serious injuries) in Ghana?*

1.3 Research Objectives

The study is guided by the following objectives;

- i. To ascertain how road safety campaigns persuade and change the target behaviours in Ghana.
- ii. To examine specific channels used to inform/communicate the target audience in Ghana.
- iii. To determine the effectiveness of road safety campaigns in Ghana.
- iv. To examine the challenges associated with increasing awareness using road safety campaigns.

1.4 Research Questions

The questions that the study seeks to answer are as follows;

- i. How do road safety campaigns persuade and change the target behaviours in Ghana?
- ii. What are the specific channels used to inform/communicate the target audience in Ghana?
- iii. How effective are road safety campaigns in Ghana?
- iv. What are the challenges associated with increasing awareness using road safety campaigns?

1.5 Significance of the study

The extended essay is of significance in the following ways; policy direction, academia, profession, and future researchers.

First of all, policy direction on road safety is critical to any nation, and Ghana is not an exception. All enforcing agencies, including the Police, Ministry of Transportation, National Road Safety Commission, Metro Mass Traffic Transport Unit, etc. have a vital interest in this study's outcome. The outcome and recommendation on mass media campaigns can help improve on existing policies on road safety by persuading and informing road users or target audience in Ghana.

Higher learning institutions, including the Ghana Institute of Journalism, benefits from the outcome of this study. As a student of the Ghana Institute of Journalism, the final document becomes a secondary source of data for students and faculty who wish to extend this study on communication strategies in Ghana.

In Ghana, the media profession is central to media campaigns and will be enhanced by identifying the gaps in developing mass media campaigns. This can challenge media practitioners to appropriately develop effective media campaigns to create awareness and reach the targeted population.

Lastly, this study's report will benefit future researchers as they could identify the knowledge, methodological, theoretical, and literature gaps. These gaps could form a basis to extend studies in the future. Future researchers in the latter studies could also broaden the scope of the study.

1.6 Justification of the study

Indeed, road traffic accidents have caused more injuries and deaths in the last two decades, and this canker keeps recurring anywhere, everywhere, and anytime. Many attempts, including mass media campaigns, have been deployed by policymakers to reduce the canker. For instance, drivers under the influence of alcohol drive resulting in road accidents. A background assessment of the situation boosted the researcher to explore media campaigns and road accidents in Ghana. This

study stands to be exceptional because it becomes a basis of generating evidence on the role of media campaigns in fighting against road accidents in Ghana.

1.7 Scope of the study

The content scope remains the role of media campaigns on road safety and accidents in Ghana. These include assessing media campaigns and how it reduces road accidents. The time scope remains the last five years of the start of the campaign.

1.8 Organization of the study

The study is organized into four chapters. Chapter one focuses on the Introduction. The chapter's main sections include background information, problem statement, research objectives and questions, the scope of the study, the significance of the study, and the organization of the study.

Chapter two reviews both local and international, current, and previous literature on mass media campaigns and its effectiveness in reducing road accidents. Furthermore, associated theories that persuade and inform are spelled in this chapter. This is followed by Chapter three, which relates to the methodology followed to organize, collect, and analyze data from the research settings. The main themes included the research approach, research design, research method, source of data, etc. Lastly, Chapter four forms the conclusion of the study and significant findings. In this chapter, some recommendations were given based on the study findings and limitations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter reviews the relevant literature on the role of media campaigns on road safety and accidents. It analyzes and synthesizes the literature on how road safety campaigns persuade and changes the target behaviors, specific channels used to inform/communicate the target audience, the effectiveness of road safety campaigns, and the challenges associated with increasing awareness using road safety campaigns.

For orderly presentation, the chapter includes a conceptual review of concepts—lastly, an empirical review on similar studies related to the specific questions that guide the present study. Lastly, a theoretical review of theories applicable to the study was discussed in this chapter.

2.1 Concept definition

Two concepts are defined in this section. They include campaign and road safety campaigns.

2.2.1 Campaign

Campaigns has become one the most widely-used tools to promote and improve road safety and are an essential component of road safety strategies in jurisdictions worldwide. These initiatives have long been used to increase awareness of traffic laws and new legislation, safe driving practices, and educate the public about issues related to road safety. The popularity of campaigns may result from the fact that they are scalable in size and can also use for weeks, months, or years in either an intermittent or sustained fashion (Robertson, 2015).

Campaigns also serve as tailored to different audiences and easily adapted to various priorities, including road safety, drinking, alcohol, etc. They often combine media-related advertising and education with increased enforcement efforts of some kind, although this is not always the case. With the advent of social media marketing and new technologies, road safety campaigns have also begun to incorporate new approaches to raising awareness and communicating messages. For these reasons, campaigns appeal to various audiences and can be used to satisfy various objectives related to road safety.

2.2.2 Road safety campaigns

Road safety campaigns can be defined as purposeful attempts to inform, persuade, and motivate a population (or sub-group of a population) to change its attitudes and behaviors to improve road safety, using organized communications involving specific media channels within a given period. It can have many and multiple purposes, such as informing the public of new or little known traffic rules, increasing problem awareness, or convincing people to refrain from hazardous behaviors instead of adopting safe ones.

Despite the wide variation across campaigns, many are designed to achieve one or more key goals. In the Manual for Designing, Implementing, and Evaluating Road Safety Communication Campaigns, Delhomme et al. (2009) identify five main goals of road safety campaigns which include:

- ✓ providing information about new or modified laws (e.g., new penalties for provincial, territorial offenses with a blood alcohol concentration (BAC) of .05);
- ✓ improving knowledge and awareness of new in-vehicle systems, risk, and appropriate preventative behaviors (winter tires, crash risk, wearing a seatbelt)

- ✓ changing underlying factors known to influence road-user behavior (e.g., emphasizing that most people do not drink and drive; perceptions about speeding);
- ✓ modifying problem behaviors or maintaining safety-conscious behaviors (e.g., challenging misperceptions that it is safe to use the phone while driving); and,
- ✓ decreasing the frequency and severity of crashes (e.g., lower speeds reduce the risk of injury).

2.2 Road accidents and media campaign

Accident severity is of particular concern in traffic safety, as many efforts address accidents tend to be measured not only to prevent accidents but also to reduce the severity of the accident. another way to do so is to identify the most probable contributing factors that affect accident severity.

Especially in developing countries where Ghana is no exception, there is an urgent need to implement road safety education on a wide scale in the Kurdistan Region of Iraq and throughout the wider region. Road safety education is "the totality of measures, which aim at positively influencing traffic behavior patterns." This education program has three pillars - promotion of knowledge and understanding of traffic rules and situations, improvement of skills through training and experience, and strengthening and changing attitudes towards risk awareness, personal safety, and other road users (Dilshad, 2018).

High death tolls and injuries can be cut sharply if these campaigns are implemented effectively. Nevertheless, behavior change initiatives alone will achieve only modest results and cannot be sustained unless coupled with other measures such as improving roads, law enforcement, and driving training (Gupta et al., 2017). There is an urgent need to promote preventive measures and complementary strategies. The Kurdish authorities have taken some steps, like mandatory training and tests before issuing driver licenses, periodic car inspections, and enforcing the speed limit in

the urban areas. However, these measures are not enough, and many challenges remain (Iraqi, 2017). Local authorities and NGOs should identify and adopt approaches and interventions that have proven effective in preventing and reducing road traffic casualties, especially among youth.

Various laws have been enacted by Act of Parliament to give legitimacy to the state institutions responsible for ensuring maintenance of road traffic fatalities regulations to minimize or eradicate road traffic accidents. In Ghana, some of such regulations include a speed limit of 100km/h on motorways, 90km/h on highways, 50km/h on areas where human activity is predominant such as markets and schools. Minimum age limit for driving is 18 years, and this has been codified in the Act of Parliament and makes it an offense for any minor to drive a vehicle on Ghana roads. Many drivers and pedestrians are ignorant of Ghana's road traffic regulations (Abdul and Ansa, 2017).

However, the National Road Safety Commission (NRSC) is doing quite well in road safety education, monitoring, evaluation, and especially educating the public on safety issues ahead of the festival and political rallies. However, it needs to bring the law enforcers board. They must be re-oriented and aware that road safety campaigns' success begins and ends with them as enforcers of the law.

Several factors have contributed to the high level of road traffic accidents in developing countries, including Ghana. One such cause is the use of faulty-old vehicles on the road. In reality, these vehicles are not roadworthy, but due to the activities of corrupt officials of the DVLA, roadworthiness certificates are issued for these vehicles. The result is that the vehicles are inefficient, and brakes may fail when applied for the vehicle to slow down or stop entirely, thereby resulting in road traffic accidents, often accompanied by fatalities (Coleman, 2014).

Sometimes these vehicles breakdown in the middle of the road, and by the time the vehicles are cleared from the road, other approaching vehicles must have collided with such broken down vehicles with its associated fatalities, they further asserted. Alcohol consumption by drivers and pedestrians is a principal cause of road traffic accidents in the study area. Many alcoholic beverages by drivers are consumed at most funerals, all-night parties, and other social activities on Saturdays, causing road accidents (Coleman, 2014).

According to Kalu (2017), many lives have been lost, and some individuals are maimed due to road traffic accidents in the ten regions in Ghana. Road accidents impact negatively on the Gross Domestic Product of the country. The study has shown that the country loses 1.6% of her GDP to road traffic accidents in Ghana. It was revealed that the worst victims of road traffic accidents are pedestrians who are often knocked down and killed or injured by drunk drivers. Saturdays have the highest rate of road traffic accidents among all the week's days due to its associated ceremonies such as funerals, weddings, and naming ceremonies where alcoholic beverages are excessively consumed.

Road safety media campaigns play a valuable role in improving road safety by promoting safe behaviors

2.3 Road safety campaigns and target behaviors

According to Dilshad (2018,) few public health initiatives, like road safety campaigns, have been implemented to inform the public and mitigate the injuries and trauma caused by road accidents. Road safety campaigns are designed to “purposefully inform, persuade, and motivate a population (or sub-group of a population) to change its attitudes and behaviors to improve road safety, using

organized communications involving specific media channels within a given period" (Hoekstra and Wegman, 2011).

Adopting behavior change strategies through media campaigns is of considerable interest to road safety professionals because this has become one of the most cost-effective interventions to address road traffic accidents (Hoekstra and Wegman, 2011). Purposefully, road media campaigns convince people to abstain from hazardous behaviors and adopt safe practices. According to current research, behavior can be influenced by delivering well-designed and well-implemented road safety campaigns based on a solid theoretical foundation (Robertson and Pashley, 2015).

A well-designed campaign takes into account an analysis of local data on road accidents and their outcomes, a more detailed analysis/understanding of why people are engaging in excessively aggressive driving behavior, and developing and implementing a campaign of messaging to change behavior (Robertson and Pashley, 2015). According to individuals, including users of roads, learn new information, and change behaviors depending on how the information is delivered and promoted through visual, auditory, and kinesthetic channels (Fleming, 2012). Successful campaigns include various resources and materials that reach and influence the behaviors of that segment of the population most likely to engage in aggressive driving (Fleming, 2012). Evidence suggests that effective evidence-based behavior change campaigns should contain four phases: research/ design, production, dissemination, and evaluation (Fleming, 2012).

This approach to road safety campaigns confronts people with depictions or associations of negative consequences of risky behaviors by capitalizing on their fears (SWOV, 2009). Road safety campaigns take advantage of the emotions of a target audience. They may rely on graphic imagery (e.g., crash footage, injuries) to scare and shock individuals or use messages that attempt to invoke shame or guilt. The effectiveness of such approaches is unclear. What is known is that

individuals react differently to fear-based campaigns depending on their characteristics and how the fear appeals are used. There is evidence that shows that fear-based approaches can work under specific circumstances.

Campaigns that describe or demonstrate coping mechanisms (i.e., strategies that tell individuals how to avoid or cease a malicious behavior safely) invoke more significant change than those that only use fear and shock (Cismaru et al. 2009; Wundersitz et al. 2010). Ultimately, research points to the fact that behavior change likely occurs from individuals' willingness to adopt the recommended change and the available coping mechanisms, rather than the strength of the fear appeal itself (SWOV 2009).

2.3.1 Specific channels of communication the target audience

The first step to creating a road safety campaign is to acquire data and information to better understand the audience that engages in the problem behavior to be targeted by the campaign. On the other hand, the type of media used by the campaign should ideally be determined by the context in which the behavior occurs and the demographic characteristics of the local context. Where possible, multiple means of communication should reach the target audience (Zampetti et al., 2013).

Whereas provincial and national campaigns may aim to reach a broad audience, community-based campaigns may have a particular audience or focus on a much smaller population. Regardless of audience size, the audience's segmentation can help focus the campaign on the distinct characteristics of a specific group (Coleman, 2014).

As such, data about road users, factors that contribute to the problem, and the context in which the targeted behavior occurs can be useful. Any analyses about the target audience or information

about related campaigns (Delhomme et al., 2009) can further increase the target audience's understanding. In other words, local governments and community partners are encouraged to develop a solid understanding of the characteristics, knowledge, beliefs, and behaviors of the at-risk population that is data-driven and systematic. At a minimum, this may include pretesting about issues to gather baseline measurements before the campaign and analyzing available traffic data.

It could also include behavioral observations, surveys, interviews, or focus groups (Boulanger et al. 2007; Wundersitz et al. 2010). These pre-campaign measures can be invaluable to inform the design and dissemination of a road safety campaign. For instance, a focus group conducted in Nova Scotia revealed that more Nova Scotians were on Facebook than those who watched TV or read the newspaper. This suggested that their *Share the Road campaign* may have better reached the audience through social media channels than other media formats (Baglo et al., 2013).

Understanding a target audience goes beyond merely collecting information about a specific population's typical behaviors and attitudes. To influence individuals, one must have a solid understanding of the context and motives in which the targeted behavior or attitude occurs. This can be a very telling factor, especially in the local context where individual factors (e.g., limited access to public transportation or cultural attitudes) can play a role in shaping why individuals choose to behave a certain way or perceive road behavior as appropriate. Linkenbach and Perkins (2005) postulate that understanding existing social norms is imperative to a successful road safety communications campaign. For example, their research demonstrated that young adults who choose to drink and drive typically believe they act the same as the youngest people their age. The majority of others engage in the same behaviors.

Similarly, it is essential to remember that audiences are not passive receivers. Audience motivation must be taken into account to make sure that the message is developed to appeal directly to a

particular audience (Wundersitz et al., 2010). Consequently, understanding existing underlying factors can allow local governments and community partners to design a messaging and delivery campaign to address particular influences. Lastly, while it is essential to concentrate on developing a campaign on the target audience, it is also essential to consider other audiences who could potentially influence the primary population (Delhomme et al., 2009).

For instance, a campaign that targets distracted driving behaviors among teens may also benefit from materials or messages that resonate with teen drivers' parents. This would potentially allow a campaign to influence the target audience on multiple fronts, as parents' behavior can shape the behavior of teens. Understanding the environment and socio-demographic variables present in the local context can help identify all populations, including those that could assist in developing effective campaigns.

2.4 Effectiveness of road safety campaigns

Effective campaigns are more frequently built upon recognized psycho-social and educational theoretical foundations, which are used to guide program development and increase understanding of the factors that contribute to the issue at hand. Although many successful national and provincial road safety campaigns have been implemented over the past several decades, these initiatives have been more limited and challenging to deliver in a local context. This may be because national and provincial campaigns can be difficult to adapt at a community level. Indeed, the nuances and facets of individual communities' issues may be different from those identified at national or provincial levels (Agrawal and Duhachek, 2009).

Hence, communities may find that the campaign's design or messages are not relevant to their community, mainly if the driving force behind a problematic behavior is a function of local

attitudes, perceptions, or experiences that are not addressed by the campaign. There may also be specific community features that are not acknowledged as part of existing campaigns, such as rural road issues or local types of wildlife involved in collisions with vehicles. Consequently, communities may prefer to design a new campaign from scratch. However, they rarely have access to the same resources or expertise available as part of more massive campaigns (Carpenter, 2010). Prior research by Robertson (2015), Atkin and Rice (2013), Baglo, Habib and Peterlin (2013), Adamos, Ausserer, Brijs, Brijs, Daniels (2009) have investigated the effects of road safety campaigns. While individual evaluations have focused on different road safety issues and different measures of behavior change (e.g., crash data, observational data, self-reported changes in behavior, perceptions, and attitudes), overall, many have shown a range of positive outcomes and demonstrated that road safety campaigns could change perceptions and reduce crashes. One of the most prominent studies involves a European meta-analysis of 437 effects extracted from 228 international studies conducted in 14 countries during the past 30 years.

2.5.1 Factors influencing the effectiveness of a mass media campaign

Several aspects of mass media campaigns may influence their effectiveness. These can be categorized into variables related to message content and to message delivery. Message content. One crucial aspect of message content involves the themes used to motivate the desired behavior change. Some common motivational themes in mass media campaigns include fear of arrest and legal consequences of arrest; promotion of positive social norms; fear of harm to self, others, or property; and stigmatizing drinking drivers as irresponsible and dangerous (Bonnet, Lechat, Ridde, 2018).

The actions promoted by the campaigns also vary, ranging from messages related to abstinence or moderation to more specific behavioral recommendations such as using a designated driver or taking the keys from an intoxicated person who plans to drive. Decisions related to message content are generally made based on the opinions expressed by experts or focus groups rather than on evidence of effectiveness in changing behavior. Another aspect of message content relates to the optimal amount of anxiety produced (Bonnet et al., 2018).

The effectiveness of “fear-based” campaigns is the subject of a long-standing controversy. Some level of anxiety arousal is generally seen as a desirable motivator. However, several authors have cautioned that generating intense anxiety by emphasizing the severity of a problem and the audience’s susceptibility to it can cause some people to ignore or discount the campaign messages (Anderson et al., 2009).

Although this caution appears to be justified, increasing the strength of a fear appeal also increases the probability that the audience will change their attitudes, intentions, and behaviors. These changes are maximized, and defensive avoidance is minimized when the anxiety-arousing message is accompanied by specific information about actions that people can take to protect themselves (Blantari et al., 2015). The degree of persuasion versus defensive avoidance produced may be influenced by interactions between the recipient's message content and characteristics. For instance, strong fear appeals may be more useful for motivating a response among segments of the audience that initially do not view the problem addressed as being essential or relevant to them.

They may also be more persuasive to people who are already engaging in the desired behavior.⁸ Message delivery. A mass media campaign cannot be effective unless the target audience is exposed to, attends to, and comprehends its message. Two important aspects of message delivery are control over message placement and production quality. Control over message placement helps

ensure that the intended audience is exposed to the messages with sufficient frequency to exceed some effectiveness threshold. It also allows for the optimal timing and placement of those messages (Williams, Idowu, Olonade, 2015).

This control can only be assured with paid campaigns. Those that rely solely on donated public service time may attain adequate exposure, but message placement and frequency are ultimately left to media schedulers and station management; paid advertising time always gets preferential placement. Assuming that the target audience is adequately exposed, the campaign messages' high production quality may maximize the probability that the audience will pay attention to them. High production quality may also improve the chances of eliciting the intended emotional impact—message Pretesting. Pretesting campaign themes and messages are also thought to be essential for a successful outcome (Kolawole, 2015).

Pretesting can help to assess which themes or concepts are most relevant to the target audience. It can also help to ensure that the target audience will attend to and comprehend the specific messages presented. The importance of pretesting is highlighted by evaluating a mass media campaign designed to prevent alcohol-related problems by encouraging drinking in moderation (Bonnet et al., 2018). No pretesting of ads was done for this campaign, and a survey conducted at mid-campaign found that over a third of respondents thought the ads were promoting alcohol consumption. Many mistook them for beer ads (Blantari et al., 2015).

A study by Phillips, Ulleberg, and Vaa (2011) revealed that road safety campaigns generally aim to reduce the number of road incidents by approximately 9%, increasing the car seat belt use by 25%, reducing the level of over-speeding by 16%. The campaign's other objectives seek to increase compliance behavior by 37% and increased risk comprehension by about 16%. The study further revealed insight into the features of campaigns that contributed to media campaign effectiveness

in terms of crash reductions. These features included: drinking and driving campaigns; shorter duration (less than one month); personal communication; roadside delivery, use of roadside media, or delivered in proximity to the behavior occurring. Other features include a combined emotional/rational message with a more decisive influence than a purely rational message, accompanied by enforcement, and combined with mass media (Phillips et al., 2011).

The effectiveness of road safety campaigns hinges on several factors, including the types of tools used in the campaign (e.g., posters, TV, radio, social media); program duration (e.g., weeks, months, years); social norms underlying the target audience (e.g., perceptions about the acceptability of a behavior); and, the external influences and environment in which the issue takes place (e.g., barriers to the behavior, social control mechanisms, features of the road).

2.5 Theoretical framework

It is reported that road safety mass media campaigns often are linked to an enforcement component, further complicating the relationship among the potential elements of change. Many models of behavior change were reviewed to conceptualize the changes that occur in behaviors and attitudes (regardless of the order in which these processes occur).

The theories, which are sometimes described as social persuasion models, focus on changing knowledge, attitudes, and behaviors. Significantly, three (3) theories that apply to road safety mass media campaigns include; Roger's Protection Motivation Theory, the Extended Parallel Process Model, and General Deterrence Theory.

2.6.1 Roger's Protection Motivation Theory

Bandura's (1977) of Social Learning/Cognitive Theory was revised by Rogers (1983) to become Rogers' Protection Motivation Theory. Rogers identified three crucial factors that determine acceptance or rejection of a fear appeal: the magnitude of noxiousness of a depicted event, 2. the conditional probability that the event will occur provided no adaptive activity is performed, and 3. the effectiveness of the coping response that might avert the noxious event (Rogers & Mewborn, 1976).

Fear arousal messages are most likely to be effective when the threat is perceived as severe, and the consequences likely to occur if there is no action taken, and unlikely to occur if the recommended action is taken (Cismaru et al., 2009). Both the response efficacy (how well the adaptive behavior averts the threat) and self-efficacy (how well the individual is able or perceives himself as able to carry out the recommended behavior) influence the efficacy of the coping response (Adamos et al., 2009).

The behavior that results can be appropriate/adaptive or inappropriate/maladaptive. For example, if an individual correctly assesses a threat as severe, but has low self-efficacy, then maladaptive coping responses are more likely to result than the recommended behavior. Alternatively, an individual who correctly assesses a threat and has high self-efficacy is more likely to undertake an adaptive coping response, precisely the recommended behavior.

Rogers proposed these two main inputs influence protection motivation, which in turn motivates behavior: 1. an appraisal of the threat; and 2. an appraisal of one's ability to deal with the threat in the recommended manner. According to Donovan et al. (1995), the model receives considerable attention from both public and commercial health marketers. They recommended incorporating a

“benefits appraisal” as a third input, operating either parallel with the threat and coping appraisals or afterward (Woolley, Dyson, & Taylor, 2001). Another issue discussed by Woolley et al. (2001) is the imminence or immediacy of the threat, which refers to the timeframe in which the threat is likely to occur.

A fear appeal concerning an immediate threat will be more effective than one referring to a possible outcome in 20 years. LaTour and Zhara (1988) stated that the model could not be satisfactorily validated due to the difficulties with the measurement of fear. However, other research states that the model has been tested empirically with some success and, according to Woolley, et al. (2001), offers the most functional specification of the stimulus conditions that affect persuasion. In conclusion, notwithstanding the difficulties validating the model, the model deals well with the range of variables, including coping responses and self-efficacy. The model would be well suited to application in the road safety mass media campaigns.

2.6.2 Extended Parallel Process Model (EPPM)

Witte (1998) developed the Extended Parallel Process Model (EPPM). The EPPM is expanding the previous theoretical approaches (Rogers, 1983), which grew from the HBM with a more experimental or explanatory focus (Lapinski & Witte, 1998). The EPPM states that evaluating a health threat initiates two appraisals, resulting in either danger control (cognitive) or fear control (emotional) processes. The greater a person perceives the threat to be, the more motivated they are to begin the next step, evaluating the efficacy of the recommended response.

When the threat is perceived as low (trivial or irrelevant), there is no motivation to consider the threat further. The person will simply ignore it. When danger control processes predominate, this will result in preventive actions, providing the perceptions of efficacy are greater than perceptions

of threat. Individuals are motivated to control the danger by thinking of and taking self-protective action.

This is primarily a cognitive process. There is also a critical point at which a person realizes they cannot prevent a severe threat. This is either because they believe the response is ineffective or incapable of carrying out the recommended response. At this point, fear control processes begin to dominate over danger control processes. Fear control processes are primarily emotional – responding to and coping with fear. Lapinski and Witte (1998) stated that fear appeals with a high level of threat, and low efficacy levels tend to result in message rejection. Thus, according to EPPM, an individual faced with a health threat will either control the danger or control their fear.

In terms of mass media campaigns, there are two further issues to consider, specifically, levels of perceived severity and susceptibility. An individual can have a high perceived severity regarding a threat, but a low level of perceived susceptibility. A classic example of this type of relationship is the perception of AIDS. Most people perceive it as very severe and have a very low likelihood of catching it. Thus, they are unlikely to appraise a high level of threat. It is also critical that messages promote strong perceptions of self-efficacy and response efficacy; otherwise, the message will arouse a fear control response.

Messages using the fear appeal approach have been used in skin cancer prevention, pregnancy prevention, radon awareness, tractor safety, nutrition programs, and breast self-examination (Lapinski & Witte, 1998). In conclusion, EPPM is a comprehensive model, mainly due to the inclusion of variables such as perceived severity, susceptibility, and fear response. Adaptive and maladaptive coping responses are also included. The model was developed from HBM but utilized aspects of fear appeal theory and coping responses with good effect. The model is highly relevant to the field of road safety.

2.6.3 General Deterrence Theory

Homel (1988) distinguishes between general deterrence, which refers to the threat of legal punishments on the general public, and specific deterrence, which refers to the impact of legal punishments on those who have suffered them. In Homel's usage, deterrence refers to "the effects of legal sanctions on behavior through the mechanism of fear of legal punishment." General Deterrence Theory was developed to predict a deterrent effect of Random Breath Testing (RBT) as implemented in Australia (Homel, 1988).

There are strong propositions that undergird the model. Specifically, individuals must be exposed to law enforcement or receive information about law enforcement before they can be deterred. Furthermore, the evaluation process gives meaning to experiences and cognitions, such as exposure to law enforcement or perceptions of legal sanctions. There must also be an investigation of the effects of official legal activity on non-legal sanctions that inhibit or encourage drinking and driving to identify the deterrent effects of legal activity. The model proposes that people link official legal activities and illegal activities (such as drink-driving) through law enforcement exposure.

The consequent perception of severe or even certain sanctions results in attempts to avoid committing the offense. All types of persons' behavior can be described in terms of the deterrence model, including those with highly developed consciences regarding drink-driving and "high-risk" people such as problem drinkers or alcoholics. The "non-legal sanctions" component highlights the importance of the physical and social environment. The individual is assumed to be subject to three types of social control mechanisms; guilt feelings from the internalization of norms, threat of social stigma from informal sanctions, and physical and material deprivation.

Material deprivation can be legal (loss of license, etc.) or the costs and inconveniences associated with not driving after drinking (taxi costs, picking the car up the next day, etc.). There is a complex array of contradictory sanctions. Given this, the model proposes that an individual faces a choice between losses. The decision-making process is influenced by the complicated and possible interactive relationship between the perceived costs of non-legal sanctions and those associated with legal sanctions.

All three theories, namely EPPM, Roger's Protection Motivation, and General Deterrence Theory, would suit road safety campaigns in Ghana. For instance, General Deterrence Theory was explicitly developed for the area of road safety, which confers advantages in terms of comprehensive coverage of elements of enforcement; however, it does not cover the more psychological aspects of behavior.

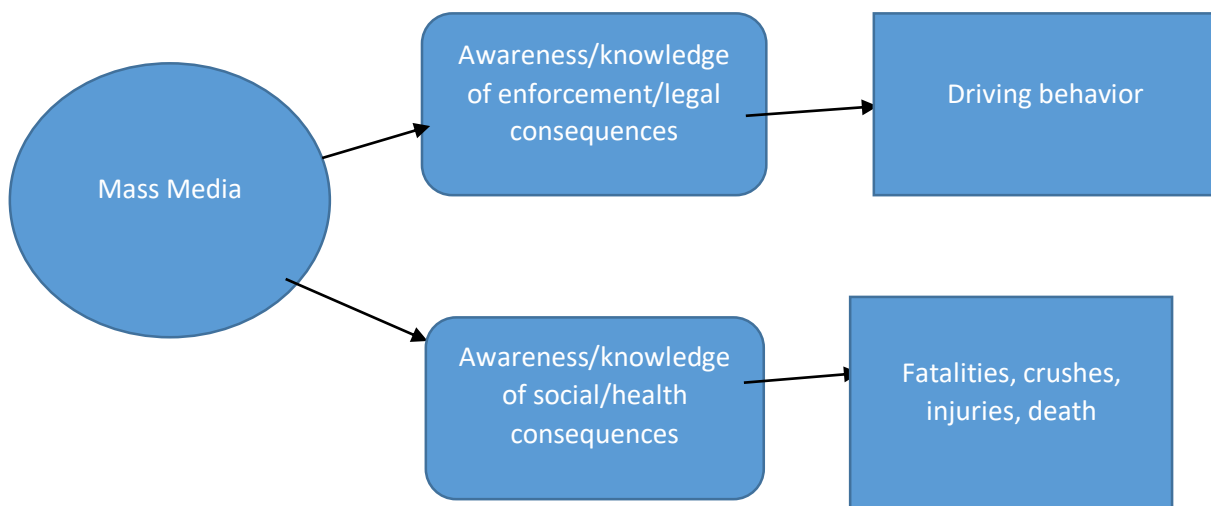
Thus, the theories have varying applicability to road safety. Theories that appear particularly suited to road safety are Roger's Protection Motivation and EPPM. General Deterrence Theory is also valuable; however, it is more specific to the behaviors' enforcement aspects than the behaviors' psychological aspect. Woolley et al. (2001) suggest that understanding the behavioral component highlights the importance of social persuasion framework to guide research in road safety, with the added benefit of further guiding evaluation.

The EPPM, Roger's Protection Motivation, and General Deterrence Theories suggest that, as with other preventive health efforts, mass media campaigns are most likely to reduce drinking and driving if their messages are reinforced by other efforts (Elder et al., 2014). Again, reinforcing factors may include law enforcement efforts, grassroots activities, and other media messages related to driving. In locales that devote the considerable resources needed to develop high-quality

mass media campaigns, such prevention activities may be particularly intense. It is not easy to objectively evaluate the importance of such factors in the success of mass media campaigns, however, because the campaigns are seldom implemented or measured in a manner that allows for control of their effects.

Based on the explored theories above, the researcher puts up this conceptual framework to illustrate the dependent and independent variables.

Figure 1: Conceptual framework



Source: Researcher (2020)

From the above, the independent variable is the use of mass media tools to promote safety on roads, including highways. These tools include newspapers, television, radio, and social media platforms. By deploying these campaign tools, awareness and knowledge on legal consequences and health consequences are increased to reduce road traffic accidents. Finally, the figure reveals that the outcome of using or not using mass media includes driving behaviors, fatalities, crashes, injuries, death, etc.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides how the research is conducted and the methodology used for the study. To assess the role of media campaigns on road safety and accidents in Ghana and improving road safety, the literature survey with secondary data is used.

The chapter reports how the approach is used by the researcher for the entire research. Specifically, the sections are research setting, research approach, the justification for the methodology, sources of the data research instrument, data collection procedure, research ethics, and the limitation of the study.

3.2 Research Approach

The current study is carried out as a desk study. This involves research that is conducted without fieldwork. Four steps are followed to conduct this research.

- i. The researcher clearly defined the objectives of the study as posited in chapter one of this study. This step is imperative as it guided the researcher to search well and avoid irrelevancies in gathering data for the study.
- ii. Defining the research plan. This step sets out initial thoughts on a research project logically and concisely. It allows the researcher to discuss proposed research with the audience, stating its importance and how it will be conducted.
- iii. Searching key terms in the electronic database search engines. Again, exiting data such as annual reports are scanned through.

- iv. Concluding and verifying the data gathered from the published reports.

3.3 Justification for the methodology

Comparing this type of research to field research, it is less costly in terms of time and resources. The main cost for the desk research includes researcher time and telephone charges. Also, it is very effective as most basic information could easily be used as a benchmark in the research process.

3.4 Sources of data

There are two main approaches to gathering information about a given situation, person, problem, or phenomenon. Sometimes information is readily available and just needs to be extracted and interpreted called secondary data. On other occasions, information must be gathered in a way that is created called primary data. This study adopts the secondary data.

Secondary research or desk research is a research method that involves using already existing data. Existing data is summarized and collated to increase the overall effectiveness of research. Secondary research includes research material published in research reports and similar documents including electronic databases from Emerald, SAGE publications, Science Direct, and many more. This source is very informative to guide the research and provide support for empirical evidence.

3.5 Data collection procedure

The data search is done by identification of keywords; such as media campaigns, evaluating media campaigns in Ghana, media campaigns and road safety, media campaigns and accidents, road safety and accidents in Ghana, and mass media campaigns in Ghana. Again, EBSCOhost and

Emerald databases use search engines. The researcher applied the Boolean operator (AND) used to combine keywords for the searches. Information obtained is reviewed and analyzed to summarize the ideas about the topic under investigation.

Extensive reviews are carried out by reading, comparing ideas, and taking note of the outcomes of the various literature including the theory about the research topic. Analyzing the various concerns of the given topic. Also correlation among various literature, theory providing a clear picture and outcome relating to the topic, and finally finalize on a specific one that best examines the research area.

The researcher officially informs the study participant (s) on the intention of the study. After approval is sought, the primary data collection begun on three separate occasions, all to verify and confirm empirical evidence. The duration of the data collection is in three weeks.

3.6 Ethical considerations

To begin with, the study participant is duly informed and permission sought for. It is very clear in the interaction with the study participant(s) of privacy and confidentiality of data and non-disclosure. Protocols for the COVID-19 is highly followed in the period of this global pandemic. The study highly holds this research ethics in the whole data collection process. In the references list, the researcher acknowledges all scholarly works and data consulted including books, journals, theses, and field data accordingly.

3.7 Research setting

Mass media is emerging as a noble profession on the global scene. The mass media in Ghana, includes television, radio, internet publishing, and newspapers. In Ghana, mass Media plays a very

important role. People, critical of media even acknowledge that media vigilance is necessary to check the excesses of persons placed in authority. The paper looks at mass media and its role in reducing road accidents in Ghana. Additionally, being a watchdog against the pursuit of self-interest and the media helps to promote the freedoms and rights of the citizenry (Temin and Smith, 2002).

The Liberal media in Ghana is a feature of democratic governance and the advent of Ghana's Fourth Republic in 1992. The events leading to the process saw a growing demand for a freer environment for the media. The Constitution thus, devotes copious attention to issues of media independence, citizens' right to own and operate media in furtherance of free speech (Kuu-Ire, 2009).

Now, there are more than 600 FM radio stations, 80 TV stations of which some of them have multiple channels, and 136 newspapers and several new media platforms. Out of the total 600 radio stations, there are 30 Public radio, 5 foreign radio stations, 68 Community radio, 17 Campus radio, and 292 Commercial radio channels (NCA, 2019).

Using media campaigns, the mass media plays a very important role in every society especially in social norms of which road safety enforcement. It takes its position citizenry to promote road safety education through improving driving behaviour and prevent crashes. The mass media has extremely important in establishing social norms (Hutchinson & Wundersitz, 2011).

CHAPTER FOUR

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

4.1 Introduction

The last chapter focuses on the summary of the findings, study conclusions, recommendations for adoption, and study limitations.

4.2 Summary of the Findings

“Mass media campaign” refers to a form of advertising, specifically, paid media advertisements designed specifically for a target concept. Coleman (2014) underscores the different factors, not limited to poor attitude of drivers (drug use, driver age, seatbelt use and observance of traffic regulations), vehicle and road characteristics and traffic infrastructures have influenced frequent road accidents in Ghana.

To this end, road safety campaigns have been used as a means of influencing the public to behave more safely in traffic (Hoekstra and Wegman, 2011). The campaign aims at purposefully attempting to either inform, persuade, or motivate behaviour changes in a large audience within a given time period. The questions that the study seeks to answer are as follows;

- i. How do road safety campaigns persuade and change the target behaviours in Ghana?
- ii. What are the specific channels used to inform/communicate the target audience in Ghana?
- iii. How effective is road safety campaigns in Ghana?

- v. What are the challenges associated with increasing awareness using road safety campaigns?

The above research questions were answered by adopting a desktop research approach, where extensive literature was reviewed from the local and international scene.

4.2.1 Road safety campaigns, persuasion and target behaviours

The study revealed that the frequency of road safety advertising is not enough to reduce poor attitudes of human factors on the roads. It was observed that “high levels of exposure to a campaign might be promoted in consumer advertising to keep products ‘top of mind’ but high exposure levels in public health advertising could be subject to wear out”. In that manner, mass media campaigns that seeks to promote issues of behaviours that are already known by the audience could be ignored.

4.2.2 Specific channels used to inform/communicate

Multiple forms of media were used to promote campaign message amongst the target group. It was revealed in the extensive review that media campaigns used in Ghana includes billboards, posters and television. To reach the young target audience, social media tools can be combined with road safety messages. Alternatively, websites have provided new and creative ways of reaching the target audience.

4.2.3 Effectiveness of road safety campaigns

The study found out that media campaigns could not be effective on its own except that it is combined with other activities such as enforcement. The body of knowledge revealed that that mass media campaigns alone has less effect on changing behaviors' and attitudes and vice versa.

To improve on effectiveness of the road safety campaigns, the study found out that campaign messages must focus on both enforcements with visualization. The timing of the media campaign is important. Advertising should commence first before enforcement follows and continue well into enforcement period.

4.2.4 Challenges with road safety campaigns

In this regard, attitudes supporting the non-use of seatbelts are not viewed in the same way as attitudes that drinking and driving is acceptable. In other words, some problem behaviours (e.g., distraction) that are engaged in by a larger portion of the population, and for which the risks or consequences are less clear, may be more difficult to change as compared to other issues for which the evidence is clear and well-known (e.g., driving).

Literature revealed cost as a challenge in the design and implementation of road safety campaigns in Ghana. Advertising on the media outlet is quite expensive especially if the duration is beyond a month or two. Given the costs associated with mass media advertising, a better understanding of what elements make a road safety mass media campaign effective, that includes channels and type of audience and how future campaigns might be made more effective.

4.3 Conclusions

The media “refers to all the channels of communication that are used to persuade, educate, entertain and inform various audiences and constituencies”, covering social media, print, broadcasting and electronic means that seeks to influence thinking and behaviours of drivers and pedestrians (Kuu-Ire, 2009). To this end, there has been skepticism in developing economies about media campaigns for many years and this study attempts to emphasize the case or not (Hutchinson & Wundersitz, 2011). In this current study, the problem lied in this question, are road safety campaigns able to deliver tangible and sustained reductions in road accidents (deaths and serious injuries) in Ghana?

The extensive literature has proven that, a well-designed road safety campaign could positively change the behavior of target audience. In particular, this review reveals some important lessons that can be drawn from previous campaign evaluations to guide the activities of local communities. Within any given period, the issue addressed by the media campaign influences the level of effectiveness that can be achieved.

In conclusion, media campaign could improve road safety by promoting safe behavior in Ghana. Additionally, learning and adopting from other countries facing similar road accidents can be more appropriate in Ghana. At least reducing the carnage on roads in Ghana, policy makers and government can think globally yet act locally.

4.4 Recommendations

Upon careful review of literature and secondary data, the section presents key suggestions to stakeholders that include policy makers. Notably the researcher recommends addressing problem

behaviours of target audience, better understanding the behaviours of target audience, well-design media campaign, well-executed media campaigns and appropriate duration of media campaign.

4.4.1 Addressing problem behaviours of target audience

The researcher advocates for critical evaluation of attitudes. Attitudes of drinking and driving may not necessarily be the same as over speeding and use of seat-belt. In that regard, the behaviours of some individuals may be more difficult to change than others. It is recommended by the researcher that media campaigns must consider different attitudes in designing the campaign. With this mindset, media campaign can be successful to influence change in attitudes.

4.4.2 Better understanding the behaviours of target audience

The second factor involves understanding why people are engaging in the behaviour. Lack of understanding is often resulted from misinformation or misperceptions about the problem. The researcher recommends the need to recognize why people engage in certain behavior. It is always imperative to identify the types of messages, whether fact-based, fear-based, persuasive, social norming that could best influence target audience.

4.4.3 Well-design media campaign

To ensure effectiveness of media campaign on changing poor behaviours, mass media must address the issue of designing a message for the campaign. The tone and content of the message as well as its visual presentation and imagery must resonate with the personal experiences of drivers whose behaviour is targeted. The researcher recommends that the deigned messages should be compelling or persuasive, interesting, attractive, evoke an emotional response, that are easy to adopt to help ensure that drivers are not only aware of messages, but likely to accept them.

4.4.4 Well-executed media campaigns

Using the most accessible and appropriate target audience strategically must be considered by mass media organizations. It must be noted that a well-executed campaign can carefully consider diverse tools to maximize greater reach and penetration and inform/communicate the target audience in Ghana.

To reduce road accidents in Ghana, effective media campaign strategy must consider the characteristics of the target audience and where the behaviour is most likely to occur. It is appropriately to efficiently to deliver posters in places of business frequented by the target population, to place billboards on the roads where they are likely to drive or at high crash locations, or to utilize radio public service announcements during peak driving periods when the behaviour is likely to occur. On the other hand, different tools can be used to target audience who use less time on TV or online.

4.4.5 Appropriate duration of media campaign

The effectiveness of any campaign has somewhat to do with its duration (how long or short the media campaign). Most times, fairly short media campaigns can ensure positive outcomes on reducing road accidents in Ghana. However, if the need be to extend the duration beyond a month persists, then refresh the road safety campaign with new messages to reinforce change in attitudes of drivers, even though the theme can be same. By doing so, the intention of the road media campaign is sustained in the minds of the audience, at the end, resulting in shaping the attitudes of drivers.

4.4.6 Rigorous approach to media campaign evaluation

The campaign can sustain its purpose when it is periodically evaluated. Perhaps taking a cue from previous success or failure of media campaign evaluation, could greatly inform future road safety campaigns. Perhaps the depth of knowledge on road accident campaign observations or crash report data can highly provide greater insight into the impact of campaigns on the overall road safety in Ghana.

4.5 Study limitations and future studies

It must be noted that it may take long-term for mass media campaigns to impact positively the attitudes and behaviours. Only few studies have evaluated the longer-term effects of road safety media campaigns, most likely due to methodological challenges (cross-sectional studies instead of longitudinal studies). For instance, Whittam et al., (2006) examined media campaign use over a six-year period on road accidents. Hence, the researcher recommends that lacking of scientific evaluations can be detrimental to understanding the real impact of mass media campaign. Thus, future studies could consider attempting to long term effect of campaigns and also determine what elements of the road safety mass media campaigns are effective in Ghana.

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