

A Review of Driving Behaviour Change Interventions in a Variety of Road Safety Campaigns Based on Behaviour Change Theories

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Abstract. Campaigns are employed as a fairly practical tactic to address an extensive audience in order to improve driving behaviour and promote road safety. Experts in the field of traffic safety concur that the most effective campaigns for improving traffic safety are those that draw from psycho-social theories of behaviour. The main objective of this article is to review the behavioural change theories related to various types of road safety initiatives. This study examines the body of prior research that, taken as a whole, eliminates the ability to draw accurate and thorough conclusions on the efficacy of behaviour-change theory-based campaigns. The road safety campaigns that embraced behaviour change theories may aid in changing drivers' behaviour as well as the factors that influence it, such as their knowledge, attitudes, beliefs, emotions, motivations, abilities, habits, and environmental cues, as demonstrated by the campaigns that these studies reviewed. This study offered proof in support of the practicality of directing traffic safety measures through behaviour modification theories.

1 Introduction

Road accidents are a serious public health issue that results in the loss of life and property. Every year, around 1.35 million persons lose their lives in road accidents worldwide. These incidents also result in 20 to 50 million non-fatal injuries, with many resulting in permanent disability [1]. Most road accidents are caused by human factors, including inattention, fatigue, poor driving ability, aggressive behaviour, distractions, hasty decisions and a lack of safety awareness and knowledge. Many studies have proposed various ways to improve human behaviour to improve driving quality and reduce the accident risk. Some of these ways include setting safety policies, penalising bad drivers, enforcing traffic laws, training and encouraging drivers, and using technology to track drivers. In addition, Road Safety Campaigns (RSC) are another way to modify driver behaviour to improve driving practices

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and habits. These campaigns focus on raising awareness, educating drivers, and persuading them to drive safely.

The primary goal of RSC is to create public awareness and educate the public on the significance of adhering to traffic rules and regulations. RSC also teaches drivers how to avoid distractions and impairment while also practicing safe driving habits. Aside from that, RSC works to reduce the number of road accidents, injuries, and fatalities, as well as to foster a culture of responsibility and respect among road users [2]. RSC is used in conjunction with other driver behavior change approaches such as road infrastructure design and traffic legislation to promote safe driving practices. The RSC can use different methods and channels such as media, social networks, events, posters, leaflets, stickers and so on to reach different audiences and communicate important ideas and information. To increase its effectiveness and impact, the RSC may also involve collaboration and partnership with other stakeholders such as government agencies, non-governmental organizations, schools and communities. Advertising is always used to promote the RSC; However, road safety advertisements differ in many ways from advertisements for other products or services.

A large number of RSC have been designed and deployed in recent years. However, whether or not these initiatives have a positive impact on driving behaviour and road accident rates is still being studied. The behaviour of road users can be considered subjectively rational. In other words, road users act in the way they believe is best for them. Since most drivers still think that current behaviour is the best option, they do not see the need to change. Therefore, the likelihood that attempts to increase road safety will be successful is occasionally called into question. Despite this, an assessment on the impact of RSC indicated that some are actually impacting driving behaviour and accidents. Therefore, the purpose of this paper is to overview previous studies on the RSC in the context of behaviour change theories. In previous studies, behavioral change theories were found to be the most effective method of developing public health campaigns.

2 Behaviour Change Theories

Behavior change theories are primarily concerned with changing knowledge, attitudes, or behaviour. It is commonly referred to as a social persuasion model, and it is especially useful in mass media campaigns promoting road safety [3]. Behavior change techniques are primarily used in the context of road accident intervention as strategies to influence road user attitudes, beliefs, or behaviour in order to make them more safe [4]. The framework provided by this theory can explain the determinants and process of behaviour change, as well as provide guidance in the selection and application of behaviour change techniques. For instance, in the Social Model technique, an individual, interpersonal, community, or environmental factors can all be targeted by behaviour change interventions. Individual-level interventions, for example, may aim to improve drivers' skills, knowledge, or motivation, whereas environmental-level interventions may entail changes to road design, traffic laws, or enforcement [5]. Many models based on behaviour change theories have been developed, among commonly used are briefly described as follow:

2.1 Theory of reasoned action and planned behaviour

A person's motivation factors are the determinants of how likely they are to perform a particular behavior, presented in The Theory of Reasoned Action (TRA) and The Theory of Planned Behavior (TPB) [6]. TRA, developed by Ajzen and Fishbein [7], demonstrates that people make decisions based on beliefs about the consequences of their actions. Behavior is primarily influenced by intentions. According to this theory, individuals make rational and reasonable decisions and are influenced by their attitudes and social norms to make decisions.

In contrast, the TPB by Ajzen [8] constructs on the TRA with the addition of perceived behavioral control as a determinant of intentions. In this additional variable, the individual can clarify behaviors when they feel they have little control over whether an infringement happens or not (e.g. speeding behavior). Therefore, in order to change behavior, behavioral intentions must first be changed, and behavioral beliefs, normative beliefs, and control beliefs all affect behavioral intentions.

2.2 Rogers' protection motivation theory

Protection Motivation Theory (PMT) is a psychological model developed by Rogers that explains how people evaluate threats and decide whether or not to engage in protective behaviour. According to the theory, people make decisions based on two primary factors: threat appraisal and coping appraisal [9]. Risk appraisal involves evaluating both the severity and helplessness of a threat, as well as the consequences of a potentially harmful behavior (e.g. when speeding, saving time is possible). In coping appraisals, reaction viability, self-efficacy, and reaction costs are considered as the factors determining how well instructions are being followed. These evaluations have an impact on an individual's motivation for protection, which can lead to receiving or not receiving the required behavior [10].

Unlike the health belief model, this theory can distinguish between reasonable and unreasonable choices. For example, a person who has a high level of reaction capability and self-efficacy while also having a high level of vulnerability and seriousness will naturally see that there is something they can do to avoid danger. When reaction viability and self-efficacy are low, and helplessness and seriousness variables are high, a person may feel powerless and incapable of deflecting the danger and/or performing the prescribed behaviour, leading to maladaptive reactions. Because of this, fear offers rarely work continuously [11].

Wearing a seatbelt while driving is one example of a PMT-related road safety behaviour. Threat appraisal and coping appraisal influence people's decisions to engage in protective behaviour. In the case of wearing a seatbelt, the threat assessment would include determining the severity of potential harm from a car accident as well as the perceived greater chance of the occurrence, or vulnerability. The perceived response efficacy, or the belief that wearing a seatbelt would reduce the risk of injury, and perceived self-efficacy, or the belief in one's ability to consistently wear a seatbelt, would be assessed as part of the coping appraisal. As a result, if an individual considers the threat of a car accident to be severe and believes that wearing a seatbelt is effective in reducing the risk

2.3 Transtheoretical Model of Change

The Transtheoretical Model of Change (TTM) describes how people's behaviour changes over time. It is based on the idea that behaviour change is a process that involves various stages and strategies rather than a single event. The TTM can be used to analyse a variety of behaviours, including driver behaviour. James Prochaska developed the TTM in the 1970s, which proposes that people can be at completely different stages of change [12], [13]. In specific, the five stages of change incorporate:

- pre-contemplation (where an individual may not be aware of the benefits of change nor conscious of the need to change; mindfulness has not yet occurred);
- contemplation (recognition of a problem);
- preparation (there has been a decision to change);
- action (taking steps to change behavior); and,
- maintenance (as change has prolonged, efforts are required to avoid a reversal and ensure that the new behaviors are maintained).

According to the theory, individuals must successfully complete each stage before their behaviour can be permanently changed. This model of behaviour change can have the same fluid action in terms of their stages, where one can move backwards and forwards between them. Driver behaviour studies that use the TTM as a reference model typically aim to understand the stage of change and the processes of change that drivers go through when they want to adopt safer driving practises, such as wearing seat belts and safety helmets, avoiding distractions or tailgating, or adhering to speed limits. In addition, the study would design and evaluate interventions that address the specific needs and challenges of drivers at various stages.

2.4 Transtheoretical Model of Change

Baum [14] introduced the Health Belief Model (HBM) as one of the first behavioral change models. The theory proposes that individuals promote their health through positive actions motivated by concerns about adverse health outcomes. The purpose of a seatbelt, for example, is to prevent serious injury in the event of a crash. This model encompasses more than the TPB model because it is based on perceptions of defenselessness as well as perceived earnestness. These factors contribute to a perception of danger in a particular behavior, which must exist in order for that behavior to be changed. Behavior change is more likely to occur when a spark of activity is provided, and high levels of self-efficacy are required. Corcoran [15] assumes that a rational decision maker is involved in the model's processes. There are four factors that need to be present for behavior to change according to the HBM.

- The person should be aware that continuing their current behavior will result in negative consequences,
- The person needs to have a reason to change their behavior,
- It is essential for individuals to believe that change will lead to benefits that outweigh any potential barriers,
- To change their behavior, an individual need to have the confidence (self-efficacy).

HBM also believe that behavior change is triggered by a 'cue to action' A television program or a conversation with a friend could be the source. Nevertheless, the brief must be appropriate for the person or, according to Naidoo and Wills [16], this incitement should be 'notable or applicable'. Furthermore, the HBM believes that 'altering variables' is essential to change behavior. Individuals' perceptions of the severity, risks, and vulnerability of crashes are determined by demographic, socio-psychological, and basic factors

3 Previous RSC that adapts the behaviour change theory model

RSC are a tactic used to encourage responsible driving and lower the number of fatalities and injuries caused by collisions. Through coordinated communication, RSCs attempt to persuade drivers to adopt safer driving habits, such as not fastening seat belts, driving while inebriated, driving while distracted, and speeding. Ideally, the road safety initiatives may be more successful if they are based on behaviour change theories since these theories offer a framework for comprehending why and how people change their behaviour over time.

Assessing RSC effects is one of the most important tasks. Research-driven, psychosocial theories of behavior are a common foundation of the best RSC, according to road safety experts. Behavior is a way to express the human condition due to some activities. Psychological and attitudinal factors are major factors which influence people's behavior, according to the behavioral model. There are a number of behaviour models, including TPB, HBM, PMT, and TTM, that can be used to investigate the elements that underlie particular behaviours. It is possible to develop a successful campaign to increase road safety using any

of these theoretical models. These theories are not essentially distinct from one another, even though they emphasise different terminologies and highlight some behavioural components or characteristics as being more significant than others [17].

There is a long history of using TRA to help solve a wide range of problems in traditional health care, but its application to road safety is limited due to variables such as efficacy, emotional response, and enforcement. In an attempt to improve upon TRA, Perceived Behaviour Control was added to the TPB, but it still has the same empirical problems as TRA. Meanwhile, HBM has been widely employed and can be used to predict severity as well as susceptibility. The Social Learning theory is an extension of HBM that emphasizes self-efficacy. It can be very useful in improving road safety. In spite of this, PMT is a complex and useful model. It would be an excellent tool for road safety if it included fear arousal, coping responses, and self-efficacy [3]. Accordingly, empirical evidence supports the TTM with regards to health-related behaviors [18], [19]. TTM defines change as an incremental, gradual, continuous, and dynamic process involving stages of development. However, some experts have found that the stages are less distinct than the model suggests [18], [20]. A very important point to remember is that the TTM has different stages, but that these stages are simply one portion of its rather complex design. Casey et al. [21] report that there have been very few studies that evaluate the full model and usually only one dimension is used, that is the stage of change, often referred to as the 'stage of change model'.

Research suggests that, in order to determine behavior, a clear understanding of its factors is necessary, including attitudes, intentions, social norms, perceptions of vulnerability, barriers, consequences, or sources of social control, so that strategies can be developed to change it. For a more accurate assessment of what elements might contribute to a successful RSC, it is best to look at accumulated knowledge from previous campaigns. Numerous studies evaluating RSC effectiveness have been conducted, with varying degrees of success.

3.1 Helmets campaigns

It is risky to ride a motorcycle without a helmet, and motorcycle accidents are linked to helmet use. A psychological component of motorcyclists' risky behaviours was suggested by Groeger and Rothengatter [22] in order to better understand why they behave in this way. Moreover, Ajzen's planned behaviour theory further states that psychological factors, including attitude, perception of behavioural control, and subjective norms, play a role in causing behaviours.

Kumphong et al. [23] study the factors influencing helmet use intentions using TRA and TPB theories. In the study, attitude was found to be non-significant, whereas injunctive norm and descriptive norm were significant factors for TRA. Furthermore, the injunctive norm, descriptive norm, and autonomy contributed significantly to TPB, especially autonomy, which was the most significant factor affecting the intention to use the helmet. Additionally, Kumphong et al. [24] examined how helmet use campaign activities impacted behavior change and examined the influences regarding student riders' intentions to wear helmets. The study used the TPB and the TTM as the framework. Following the helmet wearing campaign, the helmet wearing behavior improved according to TTM modeling results. In addition, the activities that remind riders to wear helmets and the chance to meet riders who wear helmets all the time also important process that affect behavioral change. Using the TPB model, it was found that perceived behavioral control was significantly associated with helmet intention, while attitude and perceived control were significantly associated with helmet use.

Dunu and Ekeka [25] using the PMT as the basis to investigated the level of exposure of commercial motorcyclists to RSC on helmet use and their response to the helmet use in Nnewi, Anambra State. Several RSC aim at influencing mental changes of attitude, which are the foundation of effective communication, such as "Wear helmets, stay safe", "Use your

head, use your helmet," and "Be Careful: Use helmets while driving your bike". By exposing and creating awareness of RSC on helmet use, the theory suggests that audiences will act positively to curb perceived health risks associated with not wearing a helmet, and then enjoy the perceived benefits of wearing one.

Kazemi and Forward [26] employed the TPB to validate the effectiveness in predicting the intention to wear helmets in Swedish bicycle helmet wearing campaign 2008. In order to examine the informative control of theory of planned behavior in the context of bicycle helmet use, linear multiple regression analyses were performed. According to the results, perceived behavioral control was the strongest predictor, followed by subjective norm. In contrast, attitude was the weakest predictor of planned behavior. Models with anticipated regret and past behavior performed particularly well at predicting helmet wearing intentions.

On the other hand, Lajunen and Räsänen [27] explored the usefulness of the HMB and TPB in understanding the intention to utilize bicycle helmet among bicycle owners. Analysis and comparison of the models were conducted using structural equation modelling. Based on the results, it was found that TPB fitted the data well; however, HBM fit the data less well than TPB. TPB was significantly related to the intention to use a bicycle helmet across all components. Other than that, Weiss et al. [28] applied the transtheoretical model of behavior change to bicycle helmet use among middle school, high school and college students. Based on the results of this study, it can be concluded that the transtheoretical model of behavior change provides a worthwhile conceptual framework for understanding bicycle helmet use. Based on the transtheoretical model, cyclists without bicycle helmets are classified according to whether they are in the precontemplation, contemplation, or relapse phase of change.

3.2 Seat belts campaigns

A study conducted by Transport Canada found that more than 40% of vehicle collision deaths resulted from people not wearing seatbelts. Seat belt use has increased throughout the world since the 1980s, in part due to successful campaigns to promote the use of seat belts. However, despite overwhelming research demonstrating the safety benefits of seat belts, many motor vehicle occupants do not use their safety restraints while driving [29].

Brijs et al. [29] evaluated the effectiveness of the 2004 Belgian seat belt campaign that are identified by the TPB as key determinants behavior. Among the interesting aspects of the study reported by Brijs et al. [29] is that the TPB framework was applied and extended with a habit and past behavior variable to verify whether seat belt usage is viewed as an automaticity mechanism or as a planned behavior. TPB model formal structure appears to have been replicated well in this study. In other words, attitude and perceived behavioral control influence behavioral intentions, whereas intentions and perceived behavioral control influence behavior.

As well, there have been campaigns in Turkey that have had positive impacts on promoting the use of seat belts. Şimşekoğlu and Lajunen [30] investigates the effectiveness of the campaign using TPB and HBM. With the essential and amplified TPB models and the HBM, self-reported seat belt use on urban and rural roads has been clarified. Based on the TPB results, attitudes and subjective norms play a significant role in developing seat belt usage intentions. The most effective way to promote seat belt use is to influence and strengthen positive attitudes. Whereas, HBM highlighted the importance of perceived benefits and barriers to seat belt use in actual seat belt use. Seat belt use campaigns should aim to further reduce perceived barriers to seat belt use since perceived barriers were the strongest predictor of seat belt use on urban roads. Self-reported seat belt use on urban roads was second strongest predicted by perceived benefits of wearing a seat belt, while self-reported seat belt use on rural roads was strongest predicted by perceived benefits. Therefore,

seat belt campaigns should emphasize the obvious benefits of wearing a seat belt in both urban and rural areas.

3.3 Drinking and driving campaigns

Drunk driving has been the subject of numerous media campaigns over the past couple of decades. These campaigns are generally aimed at persuading people to avoid drinking and driving or at preventing others from doing so. Like every other preventive measure, social campaigns are more likely to reduce drinking and driving if they are combined with other [31], [32]. According to Elder et al. [31], alcohol-related crashes were reduced by 13% through anti-drinking and driving campaigns. Studies have shown that campaigns aimed at reducing alcohol-induced driving and alcohol-related accidents have a greater societal benefit than the costs. Law enforcement at high visibility probably contributed to these results in addition to good planning and execution, adequate audience exposure, and other prevention measures [32].

Adamos and Nathanail [33] applied the TPB and HBM to local campaigns addressing the topics of drink and drive campaign. From the findings of the research, intention is the primary factor that affects behavior. This is a significant finding in the HBM. While the most significant predictors of TPB are behavioral beliefs, normative beliefs, and descriptive norms. On the other hand, the effectiveness of road safety educational program for pre-drivers regarding driving under influence of alcohol has been studied by Markl [34]. In this study, the TPB was used as a basis for influencing model components. Transtheoretical models have also been used to analyze the stages of behavior change According to the results of their study, participants' general attitudes (risk underestimation, social concerns, and negative attitudes) and TPB components (attitudes, subjective norms, perceptions of behavior control, intentions, perceptions of risk, and previous behaviors) did not change after the intervention program, since the results of the study were even lower after the program was completed, as well as a month afterward. Nevertheless, the behavior change process was significantly improved as the proportion of participants who were at a higher level (contemplation and action) was higher after the program compared to the control group, and the program's effects were viewed positively (knowledge, critical attitude, etc.).

In Greece, campaigns against drunk driving were implemented in 2008. The campaign's main goal was to raise awareness of drunk driving among young people. Adamos et al. [35] analyzed the results of their study which used a questionnaire to gather data. A questionnaire based on the TPB adaptation was designed to predict that subjective norms, perceptions of behavioral control, and attitudes influence human behavior indirectly through intentions. It appears that TPB explains a slightly higher percentage of variance in past driving and drinking behavior. The model reveals that normative belief is the weakest predictor, while control belief is the strongest. In general, the study concluded that raising awareness about drunk driving wasn't likely to have a significant impact. Despite this, it was modestly successful.

3.4 Speeding campaigns

Pennay and Australian Transport Safety Bureau [36] reveals that speed is most frequently cited contributing factor to crashes. Many drivers still speed despite the fact that excessive speed is a leading cause of accidents [37]. When one drives at an excessive speed for the circumstances at any given time, this is known as speeding [38]. In predicting determinants of driver behavior in speeding, some researchers have used theories of behavior change.

The effectiveness of anti-speeding campaigns for roadside application has been evaluated by Glendon et al. [39] based on the six components of PMT. Researchers aim to investigate

how drivers respond to experimentally tested anti-speeding messages generated theoretically using a mix of qualitative and quantitative methods. When it comes to a driver speeding problem, there is no evidence that any one of the six PMT elements operates more strongly than the others. Three benefits were demonstrated by the mixed-methods approach in this study. In the first place, PMT provides generic guidelines for developing messages, but it does not predict which messages will be effective with certain demographics of drivers. Second, respondents' comments challenged PMT to some extent, in that all messages used in this study might have been perceived negatively by drivers. A third conclusion of these findings is that roadside adoption should have a wide variety of messages, since different messages may appeal to different demographics and may decrease boredom or adaptation due to repeated exposure to the same message.

In addition, Glendon and Walker [11], investigated the effects of anti-speeding campaigns based on PMT components: severity, vulnerability, rewards, self-efficacy, response efficacy, and response cost, on reported speeding intentions. The results indicated that protection motivation theory can be used effectively to promote anti-speeding. According to findings, focusing on the severity and vulnerability of road signs might be particularly effective for influencing both males and females young. In addition, the study indicated that it is important to account for the possibility that varied message types may have different effects on different types of drivers.

Divjak and Zabukovec [40] evaluated the Slovenian anti-speeding campaign *Speeding is Worth Regretting!* and found that it was successful in changing participants' normative beliefs, personal norms, behavioral intentions, and self-reported speeding. The 2008 campaign included messages about regret, grief, death and severe injury, but not any content that was obviously shocking or enhanced police enforcement efforts were combined with television, radio, and outdoor advertising to support the campaign. Following the campaign, participants rated their individual responsibility to respect speed limits more positively, as well as their intention not to speed. They also reported speeding less frequently.

3.5 Overall effectiveness of behaviour change theories based, RSC

RSC have been shown to change perceptions and reduce crashes in previous. According to studies compiled from 228 international studies conducted in 14 countries over the past 30 years, RSC generally led to a reduction of 9% in road accidents, a 16% reduction in speeding, a 37% increase in yielding behavior, a 25% increase in use of seatbelts and a 16% increase in risk comprehension (Robertson & Pashley, 2015). Education and marketing campaigns may reduce injuries slightly, but may not be directly responsible for the reduction, according to studies on basic education campaigns in Italy to raise awareness of driving safety. Instead, enforcement efforts may have influenced the results [41]. However, campaigns are nonetheless effective in raising public awareness about road safety behaviors and risks, and a broader body of research suggests that they are even effective without enhanced enforcement measures.

Several studies have also examined the characteristics of particular road users that may affect their receptivity to seat belt campaigns, as well as their reasons for doing so. People who think wearing a seatbelt is less important feel less inclined to ensure their own safety, are less likely to accept seatbelt laws, and are often motivated to wear seatbelts because they want to avoid roadblocks rather than to protect themselves. On the other hand, individuals who use seatbelts are more likely to be driven by safety concerns, support seatbelt laws, and think that wearing a seatbelt is crucial (Tamis, 2009). Four months after an educational seat belt campaign was initiated, Tarawneh et al. [42] found that the proportion of Jordanians wearing seat belts went from 19% to 28%. It is evident from these statistics that countries with low seat belt use rates have also benefited from education and communication

campaigns. It was interesting to find that the campaign was more effective on males than females.

A RSC that effectively impacts behavior will have a positive impact on road safety, according to published research. Changing behavior is more likely to be accomplished with a campaign that is based on solid theoretical groundwork. It is evident that many of the campaigns discussed in this section have been influenced by one or more of the theories discussed in the previous section. As such, in order to accomplish a campaign's objectives, using a particular model can offer insight into a more logical, cohesive, and coherent approach.

4 Discussion and Conclusion

A number of theories have been developed to explain human intentions and behavior regarding RSC. Each of the models presented here can serve as a good basis for creating a successful RSC. There may be a variety of terminologies used in these theories to define what is important in behavioural components, but the definitions are typically not very distinct or selective. It is important to understand the elements that shape a behavior, whether they are attitudes, intentions, social norms, perceived vulnerability, perceived barriers or consequences, or sources of social control, in order to determine how to modify it effectively.

Because behaviour change theories may explain the particular intentions of drivers that result in distinct behaviours, the research review presented in this paper concludes that they are useful for RSC. Behaviour change theories are capable of comprehending the drivers' current behaviour as well as the variables that affect it, including their knowledge, attitudes, beliefs, emotions, motivations, abilities, habits, and environmental cues. Identification of the requirements, difficulties, and possibilities for behaviour change among the drivers can be aided by this.

Though useful frameworks for creating road safety campaigns are provided by behaviour change theories, these theories are not without limitations. Firstly, it is challenging to apply a one-size-fits-all strategy due to individual variability, as people vary in their readiness to adopt safer driving practices. Furthermore, complex factors like social influences, cultural norms, and environmental circumstances play a role in behaviour change, especially when it comes to driving habits. These factors may not always be fully taken into account by theoretical models. Furthermore, since campaigns frequently falter after their initial stages, guaranteeing the long-term sustainability of behaviour change continues to be a formidable challenge. The last point to consider is the behaviour-intention gap, which shows a difference between people's declared intentions and their real behaviours. This suggests that changing one's intentions or attitudes alone may not always result in noticeable actions on the road. In order to overcome these obstacles, a comprehensive strategy that takes into account individual variations, recognises the difficulties in altering behaviour, places a high value on continuous involvement, and closes the intention-to-action gap with focused interventions and continuous support systems is needed.

Furthermore, according to the drivers' readiness and stage of change, the model explains driving behaviour change interventions like fastening seat belts, putting down electronics, and respecting speed limits. While avoiding resistance or unfavourable feedback, drivers can be encouraged and persuaded by using the right language, approaches, and strategies. Drawing from the models discussed in this paper, future campaigns should be improved by focusing on specific stages of behaviour change, taking into account the fact that people differ in their willingness to adopt safer driving practices. The effectiveness of campaigns can be increased by including components like increasing public awareness of the dangers of reckless driving, offering doable tactics for safer behaviour, and encouraging an awareness of one's own vulnerability and the gravity of the consequences.

In addition, the model can be used to evaluate the RSC's impact and effectiveness on drivers' behaviour as well as traffic outcomes like the quantity of collisions, injuries, or fatalities. This can assist in tracking the campaign's accomplishments and progress and help with any necessary revisions and enhancements. Adopting behaviour modification theories can improve the strategic, fact-based, and strategic elements of the RSC. The RSC that was created with the aid of these theories demonstrated the viability of creating behavior-changing media that is grounded in theory and typically successful in lowering the number of traffic accidents, increasing awareness, and altering public opinion.

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