

Risk communication: Critical analysis of “street smart”, an annual education, awareness and behavioural change campaign.

Ahmad Aldayes, Abdulmajeed Mobrad*

EMS Department, Prince Sultan College for EMS, King Saud University, Riyadh, Saudi Arabia

Abstract

Objectives: This case study examined risk communication intervention design features as basis for informing the principles of risk communication campaign projects. In addition, the study sought to enhance knowledge on the relationship between campaign design, campaign implementation and behavioural change outcomes.

Methods: Drawing on case selection methods, the annual education awareness and behavioural change campaign by the ‘Street Smart’ program was selected for the case study. By utilizing in-depth case study analysis design, the analysis identified the principles underpinning the design features of the campaign. A comparative analysis of the design of the annual education awareness and behavioural change campaign and statistics evidence on its performance served to inform on the extent that the campaign has been effective.

Results: Overall, the impact of the annual education awareness and behavioural change campaign by the ‘Street Smart’ program has been significant in reducing number of pedestrian and cyclic accidents. Countrywide, pedestrian collisions and fatalities have declined by 50% and 21% since the street smart campaign initiative. In schools, where engineering, education and enforcement initiative have been executed, a decline of 79% pedestrian collision has been reported. However, these declines were recorded in places where various initiatives have been embarked, with areas where little activity had been embarked recording an increase in pedestrian and cyclic accidents.

Conclusion: The findings of this study demonstrate that the street smart campaign initiative has the capacity of influencing voluntary positive behavioural change among pedestrians and cyclists. In particular, however, risk communication resources should be continuously updated to reflect any emerging safety campaign need from time to time.

Keywords: Communication, Street smart, Campaign, Pedestrian, Behavioural change.

Accepted on May 12, 2020

Introduction

The number of pedestrian and cyclic accidents has been on the rise. This holds despite the numerous risk communication campaigns taking place in the society. However, in developing an effective and successful risk communication campaign, it is critical to ensure that it is not only a continuing, but also an evolving process. To be successful, it should ensure continuous updating of the communication resources to best reflect prevailing risk needs. There are an increasing number of pedestrian and cyclist accidents (National Highway Traffic Safety Administration [NHTSA]) [1], for which responsible bodies should have a risk communication program in place. In addition, there is a widespread realization that for risk communication to be of significant value, it should not only be a continuing process but also an evolving process [2].

Most risk communication campaigns are seen to show gaps and shortcomings which have continued to make the campaign process less effective [3]. As such, communication resources

need to be continuously updated so as to address the constant emerging safety needs especially in the transport industry. To conduct the review, various risk communication literatures on risk communication for pedestrians and cycling accidents will be used. The paper will use “Street Smart” annual education, awareness and behavioural change campaign as a case study to analyse the principles of risk communication project.

Hazard Vulnerability Analysis: The Pedestrian and Bicyclist Safety Problem

Nationally, in 2011, over 4,432 pedestrian lost their lives in traffic related incidences (NHTSA). This statistic represents a 3% increase from the previous year. Out of these figures, pedestrians represented 14% of all traffic related fatalities. It is estimated that over 69, 000 pedestrians were injured in a nationwide traffic crash. It has also been noted that 70% of pedestrian’ accidents happen during the night. In addition,

the driving behaviour is a growing concern as it has caused over 5.3 million injuries and 27.6 million damaged vehicles. These damages and injuries have caused \$200 billion total damages which represent 9% of the public revenue and 2.4% of US GDP (NHTSA).

Regionally, in 2013, sixty six pedestrians and seven bicyclists involved in accidents that represent 17% of the 269 fatalities reported in the Washington region (NHTSA, 2013). The cause is attributed to red right running, stop sign violation, speeding, and crosswalk violations that are attributed to combination of attitudes and inappropriate behaviours. With this statistic and the continuation of the campaign launched by Street Smart in 2002, to cover District of Columbia, northern Virginia, and Maryland embarked on annual education, awareness and behavioural change campaign that took place between April 14 and May 11 2014 [4].

Street Smart: Overview

In 2002, the Bicycle and Pedestrian Subcommittee of the Transportation Planning Board (TPB) formed the “street smart” program that would embark on creating awareness, change perception and attitudes that is faulted for increased pedestrians and cyclic fatalities. Other important urgencies that play a significant role in creating and ensuring the continuity of the campaign include, among others, The District of Columbia, Maryland, Virginia, and the Washington Metropolitan Area. In addition, the Transit Authority has also ensured that there is adequate funding for the risk communication project. There are also other important contributors such as Arlington, Montgomery Counties, and the City of Alexandria (Metropolitan Washington Council of Governments MWCOG, Street Smart [4,5].

The Education, Awareness and Behavioural Change Strategy

Inform or influence

As noted by Ulmer [6], the goal of communication initiative is to tell whether the main intend is to influence or to inform. In the smart street case, the main objective is to influence and inform the public to adopt the best pedestrians and cyclic practices. The pedestrian safety initiative is based on “three E's:” education, enforcement and evaluation. According to Smart Street [7], education is used to target pedestrians and drivers and the general public at large. Through education, recurring wave on radio, bus advertising, internet ads, printouts and posters are used to spread the message across the region. Advertising campaigns are meant to put across simple and explicit messages. For instance, "Stop for Pedestrians" and "Cross Streets Carefully" messages, play a fundamental role in changing the minds and attitudes of people (Street Smart). The media events are in most cases used as a platform to publicize the enacted enforcements.

The program is developed in multiple languages and culturally appropriate. This was determined by the strong focus of the campaign to reach different languages in the area. For instance, Hispanic residents are also reached through printouts and advertisements specifically in their language (Street Smart).

The smart street campaign uses enforcement initiative to act as an incentive for the audience (Street Smart). The residents are required through media events to heed the campaign messages. Evaluation, according to Horli-Jones is a significant component in analysing the level of awareness. This is also instrumental in depicting the future direction of the campaign. As such, informing the public on the achievements in the effort to reduce pedestrians and cyclic related fatalities will earn credibility and trust from the public [8].

Risk Communication and Risk Management

Street smart has managed risk communication by involving the public. For instance, the involvement of Metropolitan Washington Council of Governments (MWCOG) and the Transportation Planning Board (TPB), which, according to Aguado JW makes the decision more acceptable to the audience? Aguado argues that the community will most likely adopt decision if they are directly involved [9].

In 2008, after the street smart, engaged various relevant agencies in the region, a number of pedestrian improvements have been noted. In Montgomery County, for instance, locations with high pedestrian collisions referred to as “High Incidence Areas” were earmarked for safety measures. Multiple pedestrian-traffic road safety audits have been established in these prone areas. These audits have shown the significance of collaboration in improving pedestrian safety measures (Street Smart). Increased enforcement and education activities are on-going and so far, the collisions have reduced by 43% in “High Incidence Areas” (MWCOG). This is in line with Berkowitz D assertion that involving the community will reduce the possibility of enforcement delays and political pressures [10].

As put forward by Zinn, consideration should be defined on how the public should be involved including on the issues to be framed. Zinn argues that public input should be defined at the earlier stage [11]. For instance, the Street Smart campaign initiators agree that changing attitudes and behaviours takes time, and as such, the campaign progression takes three years to educate the public. In their first year of progression, the street smart raises awareness, and the second year, the campaign changes attitudes and finally on their third year, they change behaviour (Street Smart). During this process, rules and goals are explained earlier in advance so that reinforcement is carried out through the process (Figure 1).

Risk communication: Critical analysis of “street smart”, an annual education, awareness and behavioural change campaign.



Figure 1. Risk Management Diagram (Adapted from Chorus and Bartram 1999 cited in Zinn, 2008).

Trust and Credibility

In recent years, accident related to other phenomena such as petroleum industries, chemical industries and fire has made the public to perceive that organizations cannot be trusted to carry out their safety responsibilities [9]. The risk communication initiative is in most cases riddled with suspicion. As such, initial strategies are paramount to build trust in the public domain. For instance, for the street smart to win the public trust, they have availed statistics regarding pedestrians and cyclic fatalities to the public (NHTSA).

Growing the campaign by sharing with other partners is a strategy that earns credibility and trust to the street smart initiative. For instance, the street smart has incorporated various audiences’ needs while at the same time retaining the umbrella brand message. In addition, messages are in most cases customized to address different inappropriate behaviours seen on the roads. For instance, using a broad mix of media messages such as “attitude is for the ice keep off the roads”, “stopping is part of driving”, “believe or not, we don’t like truing on the sirens,” and “if you spot kids, slow to 25” are some of the messages that have been used to win trust and credibility from all types of audiences (Street Smart).

Credibility and trust have been achieved through success and partnering. For instance, the campaign has been successful in changing driver’s behaviour due to the regional collaborative effort. Most importantly, measuring the campaign success by the third party has earned trust for the street smart’s activities across the region (Street Smart).

Consideration of Outrage

It has been argued that in any communicated risk initiative, the communicator must ensure that outrage felt by the audience is not ignored [12]. To avoid outrage from the public, Street Smart has considered various principles of outrage components. They have provided the audience with a detailed

explanation concerning the pedestrian and cycle problem. For instance, in their campaign program, they have clearly indicated that fatalities are pedestrian based or driver and cyclic based. As such, the audience cannot fault anyone except to come together and resolve the problem.

Street smart has balanced outrage from the public by generating various agendas which include awareness and education awareness to drivers, pedestrians and bicyclists on traffic safety. Others include positive influence of behaviour to minimize the rate of traffic violation and accidents. Most importantly, street smart goals involve a change of perceptions and attitude of the targeted audience.

Communication Channels

The street campaign is in its eighth year and it has mainly focused on minimizing pedestrians and cyclist injuries and deaths. The campaign employs creative means of spreading its message through radio and television advertising. The messages are passed in both English and Spanish to reach drivers, pedestrians and cyclists who speak different languages. In addition, the intended audience is targeted through outdoor and transit advertising. The campaign uses buses as transit advertising as well as terminus and bus sides. Additionally, law enforcement and Local County and state agencies are engaged in distributing printed hand-outs to increase the level of awareness by educating the residents [7].

The strategy is mainly focused on complimenting the existing laws, and not to replace them. This has been done through emphasis of efforts by the state and local governments. In addition, various agencies and engineers have come on board to reconstruct safer streets and sidewalks. Laws have been enforced, and drivers, cyclists, and pedestrians are being trained to be better road users. The project is coordinated by the various agencies which include, among others, the TPB and its members’ jurisdiction, federal funds, and state governments.

How the Project Worked: Street Smart Pedestrian Initiative Safety Success

According to the annual report for the smart street campaign in 2012, pedestrian accidents reduced drastically. It is reported that the decline was as low as 6% compared to 19% in 2008. In 2007, the County Executive’s Pedestrian Safety campaign centred mainly in places where there are a greater number of pedestrian collisions commonly referred to as “High Incidence Areas”. In these places, more resources of the campaign were directed to reduce the number of fatalities that were highly recorded. Since then, a significant decline has been noted before and after initiating the Smart Street campaign in a three year average margin. During the street smart campaigns, there has been engineering improvements in various strategic points. Within a quarter mile of “A” roads nearing schools, engineering improvements have been noted. In addition, education and enforcement actions have been emphasized around schools and have seen a reduction of

pedestrian collisions by 79%. The street campaign has over the years advocated for construction of traffic calming features that could facilitate easy crossing of pedestrians. This has seen a pedestrian collision decline by 50%. Speeding has been reduced to almost posted speed limit. In places where engineering improvements, education and enforcement have been conducted especially in high incidence areas of 11%, a decline of 43% has been report.

On top of pedestrian collisions and fatalities decline, the county has also experienced a decline in the severity of injuries derived from these incidences. The fatalities due to pedestrian collision have reduced by 21% since the street smart campaign initiative. The reduction is attributed to traffic calming and speed camera measures. Culturally wise, the Street Smart campaign has targeted bilingualism locations. In this context, the first County bilingual (Spanish/English) initiative was conducted in 2010 where the grassroots pedestrian safety campaign was enacted. Using the pedestrian safety education teams, groups of members ranging between 5-8 Spanish-speaking educators approached pedestrians that showed inappropriate road behaviours on the street. The initiative was approached by using informational materials. This also included retro-reflective materials and shopping bags that were given to pedestrians. Since 2010, in Montgomery County, for instance, the initiative has been expanded to encompass a team of four supported by over fifty community volunteers.

In various counties in the region, programs such as Safer Roads to School Program have been initiated since the street smart campaign was started. In Montgomery County, for instance, safety routes were implemented in twenty two elementary and middle schools. In addition, elementary and middle schools are increasingly being targeted as more education and enforcement activities are being emphasized. This is after it has been established that more students are increasingly walking to and from school. The street smart campaign included education and enforcement initiative by engaging students to participate in countrywide International Walk Days School (IWSD) campaigns in various countries. In schools, where engineering, education and enforcement initiative have been executed, a decline of 79% pedestrian collision has been reported.

Conclusion

The street campaign has shown various strengths and weakness. Even though the results regarding pedestrian safety initiative for the last three years are encouraging, there are much enforcement and education initiatives that should be done. In 2013, the fatalities concerning pedestrian and cyclic incidences have increased to 13%. In addition, the initial data on the accident reporting show that collisions may have also gone up in the same year. However, in places where various initiatives have been embarked, collisions have continued to fall. But in places where little activity has been embarked has seen an increase in collisions incidences. In parking lots, for instance, pedestrian collisions rose to 39% in 2012. The

increase in the pedestrian collision accounts for 30% of pedestrian accidents in the entire region.

The scope of resources regarding the safety, pedestrian and cyclic should be expanded to encompass the current focus on risk communication, information which in most cases fails to get to the intended audience. Similarly, despite the fact that there enough of planning tools to carry out the risk communication process and readiness effort, leadership issues need to concentrate on advanced leadership styles at all levels of pedestrian and cyclist safety such as needs assessment and public engagement initiatives.

References

1. United States Department of Transportation: National highway Traffic Safety Administration NHTSA Traffic Safety Facts 2013.
2. Bergmans A. Meaningful communication among experts and affected citizens on risk: challenge or impossibility? *J Risk Res* 2008; 11: 175-19.
3. Guttman N. Communication, public discourse, and road safety campaigns: persuading people to be safer. Routledge 2014.
4. Metropolitan Washington Council of Governments. Spring 2014 Street Smart Public Education Campaign 2014.
5. Metropolitan Washington Council of Governments. Transportation - Bike/Pedestrian. 2014.
6. Ulmer RR, Sellnow TL, Seeger MW. Effective crisis communication: Moving from crisis to opportunity. Sage Publications 2017.
7. BeStreetSmart.com. 2014.
8. Horlick - Jones T. Informal logics of risk: contingency and modes of practical reasoning. *J Risk Res* 2005; 8: 253-172.
9. Aguado JM. Self-observation, self-reference and operational coupling in social systems: Steps towards a coherent epistemology of mass media. *Empedocles. Eur J Philos Communication* 2009; 1: 59-74.
10. Berkowitz D, Limor Y. Professional confidence and situational ethics: Assessing the social-professional dialectic in journalistic ethics decisions. *Journal Mass Commun Q* 2003; 80: 783-801.
11. Zinn JO, editor. Social theories of risk and uncertainty: An introduction. *JWS* 2009.
12. Renn O. Risk communication – Consumers between information and irritation. *J Risk Res* 2006; 9: 833-849.

*Correspondence to

Abdulmajeed Mobrad

EMS Department

Prince Sultan College for EMS

King Saud University

Riyadh

Saudi Arabia