



Effect evaluation of a road safety education program based on victim testimonials in high schools in Belgium



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ABSTRACT

For several decades policy makers worldwide have experimented with testimonials as a strategy to promote road safety supportive views in a wide variety of target populations such as recidivists and students. In its basic format, a (relative of) a victim or an offender brings a personal testimonial of what it is to experience a traffic accident. The underlying idea is that such a testimonial will emotionally affect participants, thereby stimulating them to cognitively reflect upon their own behavior and responsibility as a road user. Unfortunately, empirical literature on the effectiveness of this strategy is rather scarce and inconsistent. This study investigated the effect of a large-scale program with victim testimonials for high schools in Belgium on five socio-cognitive and behavioral variables drawn from the Theory of Planned Behavior (i.e., attitude, subjective norm, perceived behavioral control, behavioral intention and behavior). Moreover, this study investigated program effects on participants' cognitive and emotional estate and whether this influences the program's impact on socio-cognitive and behavioral variables. Our test sample included 1362 students, who were assigned to a baseline – follow-up group and a post-test – follow-up group. We questioned both groups, a first time (just before or after session attendance) on paper, and a second time (two months after session attendance) online. Results indicate the program had, both immediate and two months after attendance, small to medium positive effects on most socio-cognitive and behavioral variables. However, effects depended on participants' demographic profile, their baseline values on the socio-cognitive and behavioral variables, and the degree to which they were cognitively/emotionally affected by the program. We discuss the practical implications of these findings and formulate recommendations for the development of future interventions based on victim testimonials.

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1. Introduction

1.1. The use of victim testimonials as an intervention strategy

Testimonials by (relatives of) people who were involved in a traffic accident are frequently used in order to sensitize people to behave safely in traffic. The underlying idea is that such a testimonial will emotionally affect participants, thereby stimulating them to cognitively reflect upon their own behavior and responsibility as a road user. Over the years, victim testimonials came in use worldwide as a safety promoting intervention strategy. Even though the basic format is always roughly the same, there are differences in terms of which populations are targeted as program participants

and how such a testimonial is implemented. Concerning the populations being targeted, while some initiatives are aimed at traffic offenders, others focus primarily at learner drivers or high school students. As mentioned, there is variation in the implementation too. While in some cases testimonials are brought by (relatives of) victims of a traffic accident, others are delivered by offenders. What also differs in the program implementation, is the emotional mechanism to be induced by a testimonial. For instance, some programs clearly focus on the arousal of negative risk-averse emotions such as threat, worry, guilt, or anticipated regret, while other initiatives are rather aimed at evoking positive emotions such as sympathy or respect for the victims. Another varying aspect related to the implementation of such victim testimonials is the medium used to bring the message to program participants. These range from mass media like television spots (such as in Sweden; Linderholm, 2000) to more interactive formats such as road shows (e.g., “Never saw the day” in Ireland, O'Brien et al., 2002; “Being dead isn't cool” in Norway,

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Moan and Ulleberg, 2007; and “Too much punch for Judy” in Scotland, Powney et al., 1995), and discussion groups in a classroom setting, which is the most popular format.

The use of victim testimonials originates from the United States where in 1982 an initiative called ‘Mothers Against Drunk Driving’ (MADD) was organized. The MADD program used testimonials of (relatives of) drunk-driving victims to sensitize Driving Under the Influence (DUI) recidivists in the hope to reduce alcohol-related fatalities. These victim testimonials were meant to operate as a therapeutic experience for the victims and an opportunity for convicted DUI drivers to understand the injuries that their behavior can inflict upon other road users (Shinar and Compton, 1995). Later, several equivalent programs were set up in other countries. However, the focus shifted from DUI drivers to high school students (Feenstra et al., 2014; Glendon et al., 2014; King et al., 2008; Poulter and McKenna, 2010; Rosenbloom et al., 2009; Twisk et al., 2014) and learner drivers (Pfeiffer et al., 2006).

Despite the rising popularity of victim testimonials, there is not that much empirical research available on the effectiveness of this method. Most of the evaluation studies applying to victim testimonials are done with the help of a questionnaire (Feenstra et al., 2014; King et al., 2008; Pfeiffer et al., 2006; Polacsek et al., 2001; Poulter and McKenna, 2010; Rosenbloom et al., 2009; Twisk et al., 2014). The empirical literature available on the effectiveness of victim testimonials contains mixed results and therefore remains inconclusive. While some studies find positive effects (Feenstra et al., 2014; King et al., 2008; Pfeiffer et al., 2006; Poulter and McKenna, 2010; Rosenbloom et al., 2009; Shinar and Compton, 1995; Twisk et al., 2014), others fail to do so (Glendon et al., 2014; Polacsek et al., 2001; Shinar and Compton, 1995; Twisk et al., 2014) or even report negative effects (Feenstra et al., 2014; Glendon et al., 2014; Poulter and McKenna, 2010). As a consequence, for academics as well as for policy makers and practitioners, this is a research topic that requires further attention.

1.2. Aims of the study

The aim of the study was to empirically evaluate the effectiveness of the Flemish school-based road safety education program ‘Traffic Informers’. We decided to evaluate the effectiveness on socio-cognitive and behavioral variables from the Theory of Planned Behavior (TPB, Ajzen, 1985). Our decision to do so was not only based on the acknowledged predictive validity of the variables appearing in the TPB-model (e.g., Conner et al., 2007; Elliott et al., 2007; Elliott et al., 2013), but also on a careful analysis of the program’s targeted objectives as they were formulated in preliminary discussions with the program developers. In addition, several evaluation studies applying to victim testimonials were done by means of a TPB-based questionnaire (Feenstra et al., 2014; Poulter and McKenna, 2010; Rosenbloom et al., 2009). The TPB is one of the empirically most supported behavioral theories and has been validated in diverse research domains (Godin and Kok, 1996; Stutton, 1998). The theory postulates that behavioral intention (i.e., a person’s expression of support for the behaviors under study), the most proximal determinant of behavior, is determined by three conceptually independent variables: (1) attitude (i.e., the expression of (dis)favor towards the behaviors under study), (2) subjective norm (i.e., perceived social expectations about the behaviors under study), and (3) Perceived Behavioral Control (PBC, i.e., the subjective probability that a person is capable of executing (or not) the behaviors under study).

Altogether this study aimed to answer the following four specific research questions. First of all: ‘Is there an immediate effect of the program on socio-cognitive and behavioral variables (i.e., attitude, subjective norm, PBC, behavioral intention and behavior)?’. Secondly: ‘Is there an effect of the program on socio-cognitive

and behavioral variables two months after session attendance?’. Thirdly: ‘Does the program have an immediate effect on participants’ cognitive and emotional estate?’. Finally: ‘Does the program’s immediate effect on participants’ cognitive and emotional estate influence the program’s impact on socio-cognitive and behavioral variables?’.

2. Methodology

2.1. Traffic Informers

Traffic Informers is a large-scale school-based road safety education program that runs in the Flemish speaking part of Belgium. The first edition of the program was held in 2012–2013 with a total of 14763 students attending a session. The program is organized by a non-profit organization (i.e., ‘Rondpunt’) and is subsidized by the Flemish Ministry of Transportation and Public Works. The program targets (male and female) 16–17 year old high school students of three education types (i.e., general, technical and occupational). General education, sometimes called transition education, prepares students for university. The education is focused on theory and general knowledge. Technical education like general education, offers a theoretical education but includes also courses that are focused on practical experience. It prepares students both for university or a specific job or function. Occupational education as a rule prepares students for a specific job or function. This education is focused on practical experience. Although all these education types offer the possibility to go to university, students of occupational education need to follow an extra year of high school before they are allowed to go to university. The majority in this population does not have a driver license yet (in Belgium, a learner license can be obtained from the age of 16 years and nine months, while a permanent driver’s license can be obtained only from the age of 18 years). As such, this program focuses primarily on pre-drivers and only marginally on young novice drivers. Schools that are interested in this program register through a website (<http://rondpunt.be/getuigen/61/>) and give their preference in terms of time and location. The program costs 50 euro and takes two hours. There is an imposed maximum of 35 students per session. The first hour is dedicated to the testimonial of a (relative of a) traffic victim. Informers talk about their life before the traffic accident, the circumstances of the accident itself and their life afterwards. During the second hour there is room for a group discussion. Students share their opinions and impressions with the informer and with each other.

The program developers deliberately avoid a fear appeal-like style with bloody and excessively shocking pictures since there are indications that an over-fixation on the severity of the immediate ‘physical’ consequences of a traffic accident, will miss effect or even result in counterproductive effects (e.g., Carey et al., 2013; Peters et al., 2012; Ruiter et al., 2001, 2014, 2004; Witte, 1992). The informers adopt a serene rather than a sensational style and try to have an impact on participants not by means of emphasizing the most traumatic immediate consequences of the traffic accident but by elaborating on the long-term physical, emotional, social, financial and professional impact of such an event. In addition to that, informers pay special attention to the establishment of an empathetic connection with the group. The latter is done for instance, through a careful and detailed sketch of the informer’s personal life before the traffic accident. Informers try to show participants that their life was basically not that different from theirs and that the situational circumstances of the traffic accident itself are perfectly imaginable instead of being exceptional. Also, they try to make participants aware of the fact that a traffic accident is never just a matter of bad luck, but rather a process of inappropriately coping with a complex of risk facilitating conditions and a

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