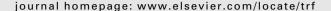


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Similarities between self-reported road safety behavior of teenage drivers and their perceptions concerning road safety behavior of their parents



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ABSTRACT

The study investigated 401 19-year-olds, who were licensed car drivers in Lithuania. The focus of the survey was on the self-reported road safety behaviors of teenage drivers and their perceptions of their parents' road safety behaviors, in order to assess behavioral similarities between teenagers and their parents. The survey also investigated whether parents and teenagers discuss issues of driving safely, and whether there is an association between these conversations and driving restrictions.

According to teenagers' reporting, road safety behavior of teenage drivers and their parents often is similar: most of them break the speed limit, drive when feeling fatigued, use a cell phone when driving, and do not fasten the seat belt as a passenger in the back seat. The study indicated that there is a positive moderate correlation between road safety behaviors of teenagers and their parents, as reported by the teenagers. A majority of teenagers report that they discuss road safety factors, driving safely and driving behavior with their parents. Based on teenager reports, the parents, who discuss road safety issues with their children, are more likely to apply restrictions on teenagers' driving.

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1. Introduction

Injuries inflicted by road traffic crashes remain a global public health problem, especially in middle and low-income countries. Although middle-income countries account for 38.7% of global registered vehicles, 49.6% of global road traffic deaths occur in these countries (WHO, 2009). Lithuania has been a middle-income country since 2004, when she joined the European Union.

Fatal injuries due to road traffic crashes are a leading cause of death for young people aged 15–29 years. In terms of total crashes per million miles driven, 16–19-year-olds have a crash rate almost twice that of 20–24-year-olds, almost 3 times that of 25–29-year-olds, and more than 4 times that of 30–69-year-olds (Williams, 2003). In the European Union,

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automobiles are the main mode of transport for teenagers, and road traffic injuries account for 46% of all causes of fatal injuries in young adults between ages 15 and 24 (EuroSafe, 2013).

The risk of a crash for young drivers is higher than for any other age group (Shope, 2006; Williams, 2003). Teenagers and young people are at a high risk to common road safety factors and at high risk for traffic crashes. Examples of risk factors include drinking and driving, speeding, not using seat belts, cell phone use, and fatigue (Eaton et al., 2012; Mohan, Tiwari, Khayesi, & Nafukho, 2006; NHTSA, 2005; Peden et al., 2004; Weiss & et al., 2006; WHO, 2012). Young people are often involved in fatal or non-fatal road traffic crashes. The most successful road safety strategies use a combination of education aimed at road user behavior improvements and skills training, legislation with vigorous enforcement, along with environmental or engineering changes (Bauer & Steiner, 2009; Elvik & Vaa, 2004; Lyons & Brophy, 2005; Pan et al., 2006; Pless, 2004; Towner, 2005).

No research on young drivers had been performed in Lithuania or other Baltic countries prior to this research. Lithuania is the one of the worst performing countries in the European Union with regard to road traffic mortality. An important contribution of this research is to empirically examine the road safety habits of driving teenagers (19-year old young drivers) and to investigate similarities across generations regarding driving behavior. Divera and Stacey (2007) conducted a comprehensive study of driver risk in some European countries, but there was no discussion of Lithuania. Official statistics are available on traffic deaths of 15–24-year-olds, which include car occupants (drivers and passengers together). For instance, in Lithuania, in 2012, the rate of transport injury deaths per 100, 000 in the age group 15–24 years was 16.1 (27.1 for males and 4.5 for females) (Causes of deaths register, 2013). Data is also available about the distribution among types of road users: drivers and passengers together, pedestrians, cyclists, and motorcyclists. In Lithuania, in 2012, in young people aged 15–24 years, the mortality rate for pedestrians was 4.6 (for male 8.1 and for female 1.0), for cyclists – 1.0 (for male 1.9 and for female 0), for motorcyclists – 1.7 (for male 3.3 and for female 0), and for car occupants – 8.5 (for male 13.3 and for female 3.5) (Causes of deaths register, 2013). Data on causes of death for 19-year-old drivers are not available.

Our study was focused on road behavior of driving teenagers and their communication with parents on road safety in a transitional period of life. This research fits into a rich model of parent-teen comparisons and discussions, and continues a long tradition of making suggestions to policy makers, which are theoretically grounded, empirically tested and have a practical use (Miller & Taubman-Ben-Ari, 2010; Taubman-Ben-Ari & Katz-Ben-Ami, 2012; Taubman-Ben-Ari, Mikulincer, & Gillath, 2005). Seminal research in this field, though using a somewhat different methodology, was conducted by Taubman-Ben-Ari et al. (2005), who indicated associations between the driving styles of parents and of their children. The effect the family has on the driving behavior of teenagers, the correlation between the driving style or risk perception of the teenager and a parent, and parenting skills, concepts, and learning methodologies have all received wide coverage in the scientific community (Brookland, Begg, Langley, & Ameratunga, 2010; Miller & Taubman-Ben-Ari, 2010; Mirman & Kay, 2012; Taubman-Ben-Ari & Katz-Ben-Ami, 2012). According to Brookland, Begg, Langley, and Ameratunga (2008), there are associations between the driving behaviors of parents and their children. Observing a parent's driving while drunk may increase the risk of a young person committing the same offence (Evans-Whipp et al., 2013). Thus, family and parents can influence driving behavior of their teenager.

In Lithuania, a driving license can be obtained from the age of 18. For novice drivers, the license is issued for 2 years. A GDL (Graduated Driver's License), which is issued in other countries, is not used in Lithuania. The role parents have in driving education is informal (it is not legally defined). Lithuanian parents use their own initiative to participate in their teens' road safety education.

The overarching research question of our study was to investigate the similarities in road safety behavior of driving teenagers and their parents, as reported by teenagers. Our hypotheses were:

- (1) We expect a positive correlation between road safety behaviors of teenagers and parents, as reported by teenagers.
- (2) We expect a significant association of discussions between parents and teenagers on road safety and restrictions for teenagers to drive, as reported by teenagers.

The objectives of the study were to investigate firstly, the self-reported road safety behavior of teenagers (as a group and by gender); secondly, their perceptions of road safety behavior of their parents; and thirdly, correlations between young drivers' behaviors and parents' behaviors, as perceived by teenage drivers. Additionally, the self-reported road safety knowledge of teenagers, their discussions with parents on road safety, and teenagers' perceptions concerning associations of driving restrictions and discussions on road safety between teenagers and parents were analyzed.

2. Materials and methods

2.1. Participants and data collection

The study investigated 19-year-old driving teenagers' self-reported road safety behaviors and their perceptions of their parents' road safety behaviors. The surveyed teenagers responded to the questions given to them. They also responded to the questions about their parents' road safety behavior.

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