Perceptions, intentions and behavioral norms that affect pre-license driving among Arab youth in Israel

Anat Gesser-Edelsburg[a,*], Mina Zemach[b], Tsippy Lotan[c], Wafa Elias[d], Einat Grimberg[c]

[a] School of Public Health, Health and Risk Communication Research Center, University of Haifa, 199 Aba Khoushy Ave. Mount Carmel, Haifa 3498838, Israel
[b] Midgam Consulting & Research Ltd, Derech Ben Gurion 13, Bnei Brak, 68181, Israel
[c] Or Yarok, Industrial Zone Neve-Ne'eman B, 45240, Israel
[d] Civil Engineering Department, Shamoon College of Engineering (SCE), Beer Sheva, Israel

ABSTRACT

The present study examines reported pre-license driving among youth from the population of Arab citizens of Israel. The purpose of the present study is to examine which sociodemographic variables, attitudes and perceptions about safe driving and individual and societal behavioral norms are associated with pre-license driving. The research distinguished between the factors that actually contribute to pre-license driving (reported behavior, peer norms, gender and parents' messages) and the factors that explain the intention (parental authority, social norms, parents' messages and fear of road crashes). Even though there was a significant partial overlap (84%) between those who intend to drive without a license and those who reported driving without a license, the main factors that distinguish pre-license driving groups are different from the factors that distinguish the intention to drive before receiving a license.

What is unique about the findings is the identification of the context in which social norms are influential and that in which parental authority is influential. The study indicated that in the case of pre-license driving, the main motivating factor is subjective norms, whereas in the case of expecting to drive without a license, the main motivating factor is the interaction between parental authority and the messages that parents convey.

While actual behavior pertains to the behavioral level, we argue that intended behavior pertains to the cognitive level. At this level, rational considerations arise, such as fear of parental punishment and fear of accidents. These considerations compete with the influence of friends and their norms, and may outweigh them.

The findings suggest that it is important to safeguard youth against the influence of peer pressure as early as the stage of behavioral intentions. Follow-up studies can simulate situations of pre-license driving due to social pressure and identify the factors that might affect young people's decision-making. Moreover, providing parents with training before the accompaniment period is highly recommended.

1. Introduction

The over-representation of young drivers in road crashes is a well-known issue, which has been extensively studied and documented in the last two decades (for a review see: DaCoTa, 2012). However, pre-license driving has not received much attention. This behavior calls for more attention, as it is associated with lack of experience, one of the most crucial factors contributing to the involvement of young drivers in crashes (Ferguson, 2003). In New Zealand, Senserrick et al. (2010) found that unlicensed drivers had about 11 times higher chance of being involved in a road crash resulting in serious injury compared to drivers holding a valid license. High crash rates are also reported in other studies (i.e., Hanna et al., 2012). It has been shown that there is an association between pre-license driving and risky tendencies (thrill seeking), risky behaviors in general (e.g. substance use; (Senserrick et al., 2010; Begg et al., 2012)), and risky driving behaviors (Elliott et al., 2008; Senserrick et al., 2010).

In Israel, Arabs comprised 16.2% of the Israeli license-holders in 2014 (Benita, 2016). However, 34% of drivers who were involved in fatal crashes that year were Arab, 2.1 times more than their relative percentage of the entire Israeli drivers. Arabs are 24% of population of young drivers (CBS, 2015) and 31% of the young Arab drivers involved in crashes in 2010–2014. Moreover 62% of the total of young drivers who were involved in fatal crashes during 2014 are Arabs (Benita,

2016). In the years 2007–2013, 4.6 drivers per 10,000 young Arab license-holders were involved in fatal crashes while the figure for young Jews was 1.1 (Israeli Road Safety Authority, 2014). Even after controlling for exposure, Arab drivers are involved in 1.6 times more road crashes than Jewish drivers, thus making them a high-risk group (Moran et al., 2010; Israel National Road Safety Authority, 2012). The Arabs in Israel are an ethnic and minority group comprising 20.8% of the Israeli population (CBS, 2017). The majority of Israeli Arabs live in rural areas, and their localities are in the three lowest clusters (out of ten) in socioeconomic ranking. The income per capita of Arab municipalities was lower compared to the income in the Jewish municipalities in the same clusters (Gharrah, 2013). Studies that have examined pre-license driving have focused on the sociodemographic profile of pre-license drivers: they tend to be young, male, belong to an ethnic minority group, live in rural areas, and come from a low socioeconomic status (Knox et al., 2003; Elliott et al., 2008; Senserrick et al., 2010; Begg et al., 2012; Hanna et al., 2012). Thus, it appears that this sociodemographic profile of pre-license drivers corresponds to most of the characteristics of young Israeli Arab drivers in this study.

1.1. The role of peers and parents

Norms are social phenomena, and are "meaningful only to the extent that individuals perceive that their violation will result in some social sanction." Thus, when examining a particular norm, is it not enough to describe the norm, we must also examine what the perceived sanctions for violating that norm are, as this will give us valuable information about compliance. The literature consistently indicates that parents and peers are very influential in shaping the behavior of young drivers, and suggests the use of subjective norms (Lapinski and Rimal, 2005) as a mechanism of influence (Fleiter et al., 2006; Miller and Taubman-Ben-Ari, 2010; Scott-Parker et al., 2015). There are two types of subjective norms: descriptive norms and injunctive norms. Injunctive norms refer to people's beliefs about what should be done. Injunctive norms (IN) pertain to perceived pressures to conform, that is, beliefs about what ought to be done, while descriptive norms (DN) refer to beliefs about what is actually done by most of the people in one's social group. In other words, we wish to examine the delineation between people's judgment of: the 'prevalence of a perceived behavior' and the "social sanctions incurred for enacting the behavior (Lapinski and Rimal, 2005).

1.2. Parental role models

Research shows similarities in parent-child driving styles and road behavior (Taubman-Ben-Ari et al., 2005; Lahatte and Le Pape, 2008; Miller and Taubman-Ben-Ari, 2010). It has been suggested that these similarities reflect that parents serve as role models for their children (Taubman- Ben-Ari et al., 2005; Lahatte and Le Pape, 2008; Prato et al., 2009; Miller and Taubman-Ben-Ari, 2010; Taubman-Ben-Ari and Katz-Ben-Ami, 2013, Carter et al., 2014). As role models, characteristics and tendencies attributed to parents, especially fathers, including sensation seeking, anxiety as well as risky driving, were found to be positively associated with greater risky driving of young drivers (Taubman-Ben-Ari and Katz-Ben-Ami, 2012; Taubman-Ben-Ari et al., 2005). Similar findings were reported by Scott-Parker et al. (2014) with regard to young male drivers.

In addition to the parents serving as role models who influence their children's risky driving, the concept of 'family climate for road safety', which was recently introduced by Taubman-Ben-Ari and Katz-Ben-Ami (2013), integrates (perceived) parental practices, values and family interactions in general into a single multi-dimensional concept. They showed that the family climate for road safety predicts several risky driving practices of the young driver. Those who perceived their parents as better role models; as providing encouraging and empowering feedback for safe driving; as enabling more open communication; as conveying clearer messages regarding safe driving, as monitoring their driving; and as setting clear limits on breaking traffic laws, tended to report taking risks less frequently. They reported being more personally committed to safety, and driving more carefully and in a less aggressive and risky manner.

The literature discusses whether the impact of parents' actual behavior is greater than their perceived behavior or verbal messages regarding safe driving to their driver children. There is some evidence that teenagers are influenced more by parents' perceived behavior (DN) than by parents' actual (reported) behavior (Bingham et al., 2015). Similarly, Schmidt et al. (2014) reports that parental modeling was more predictive than parental teaching for all domains of risky driving. However, Taubman-Ben-Ari and Katz-Ben-Ami (2013) study seems to indicate that the verbal messages may be more powerful than modeling. Whether it is the parents' behavior, their perceived behavior or their verbal messages regarding safe driving, when parents convey inconsistency between their behavior and their verbal messages, they are good role models for safe driving attitudes, but not good role models for driving behavior, following traffic rules and driving offenses (Gesser-Edelsburg and Guttman, 2013). Indeed, studies show the positive influence of cohesion between attitudes and behavior on driving: lack of cohesion increases the chances for reckless driving style (Taubman-Ben-Ari and Katz-Ben-Ami, 2013) and higher cohesion mitigates parental modeling of risky driving (Taubman-Ben-Ari et al., 2005).

In this study, the factors affecting driving without a license included parental messages about safe driving and their role modeling in terms of their perceived behavior (DN) by their children.

1.3. Peer influence

One of the most conspicuous manifestations of the influence of friends is the passenger effect, which has been the topic of many studies (for a review see: DaCoTa, 2012). In brief, the presence of peer passengers increases young drivers' potential for risky driving and road crashes. Based on a simulated-driving study, Simons-Morton et al. (2014) linked this influence to social norms by showing that the type of passenger makes a difference: exposure of teenage males to an unfamiliar same-sex peer passenger with risk-accepting norms increased risky driving behavior, compared to exposure to a risk-averse passenger, which decreased risky driving behavior. Fleiter et al. (2010) showed that a passenger may have a calming effect, which is explained by the driver's wish to demonstrate responsibility and consideration.

Peer influence extends beyond passenger effect. It was shown that young drivers who perceive their friends as risky drivers imitate their friends' driving (Simons-Morton et al., 2012; Møller and Haustein, 2014; Scott-Parker et al., 2014; Taubman-Ben-Ari et al., 2005). More specifically, perceived risky modeling by friends was found to predict greater willingness to engage in more risky driving behavior, and perceived popularity of risky driving among peers was associated with teens' risky driving (Taubman-Ben-Ari et al., 2005).

It seems, however, that social influence works differently for males and females. It has been established that young male drivers are at greater risk than young female drivers. Several studies (Cestac et al., 2011; Taubman-Ben-Ari and Katz-Ben-Ami, 2013, 2012) found that males are also more affected by negative social norms than females. In other words, it can be argued that social influence is associated with more risk among males, while for females it is associated with safer driving. For example, Scott-Parker et al. (2015) found that male drivers reported more pressure from their friends to bend traffic laws when they were driving, while female drivers reported more pressure from their friends to follow traffic laws when they were driving. Social influence is also associated with greater imitation of friends' risky driving, greater perceived riskiness of their friends' attitudes, and less expected punishment from their friends for risky driving.