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Dangerous driving propensity amongst Indian youth



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ABSTRACT

The aim of the present investigation was to study the role of sensation-seeking and impulsiveness in propensity towards dangerous driving. For this purpose, a sample of four hundred young drivers between the age group of 18–23 years was assessed on measures of sensation-seeking, impulsiveness and dangerous driving. The sample was further classified into male and female drivers. The constructs of sensation-seeking and impulsiveness were studied through their components or sub-scales. Therefore, sensation-seeking was assessed with its sub-scales of boredom susceptibility, experience seeking, disinhibition and thrill and adventure seeking while impulsiveness was gauged through attentional, motor and non-planning impulsiveness.

The statistical analysis of correlation was performed to assess relationships amongst variables with stepwise multiple regression analysis for prediction of dangerous driving. The results of present investigation revealed positive correlations between all the variables assessed on the overall sample and amongst the groups of male and female drivers. Through regression analysis on the overall sample, disinhibition emerged to be the major predictor showing maximum variance followed by motor impulsiveness, attentional impulsiveness, non-planning impulsiveness and thrill and adventure seeking. Amongst male drivers, motor impulsiveness showed maximum variance for dangerous driving followed by disinhibition, attentional impulsiveness and non-planning impulsiveness. However, amongst female drivers, disinhibition was found to be the major predictor for dangerous driving having maximum variance followed by motor impulsiveness and attentional impulsiveness.

The study gives a psychological insight into the dangerous driving behaviour of young drivers. These issues are therefore of grave concern especially for the drivers in India with its increasing young population, growing number of vehicles on roads, incidence of road rage, fatalities and like.

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1. Introduction

The world stands in the middle of a crisis of an epidemic proportion. More than a million people die annually in road crashes globally. Every day nearly 3400 people lose their lives on the roads worldwide (World Health Organization, 2013). Road traffic fatality is the eighth leading cause of death globally and is estimated to become the fifth leading cause of death by 2030. Ninety percent of road traffic deaths occur in low-income and middle-income countries. India, which has 1% of global vehicle population, contributes towards 10% of global road traffic crashes. These crashes are the seventh

leading cause of death in India with RTIs (road traffic injuries) making up to 78% of them (Krug, 1999). Road safety researchers have found certain contributory factors to road traffic crashes and have classified them into behavioural, environmental and vehicular failures (Sabey & Taylor, 1980). In majority of traffic related crashes, human error has been cited as a major causal factor which makes it imperative to study the driving behaviour of people.

Road traffic injuries are the leading cause of death worldwide amongst young people aged 10–24 years. Begg and Langley (2001) and Shope (2006) reported that motor vehicle crashes are the leading cause of deaths amongst drivers younger than 35 years of age and highlighted driving behaviour as a significant problem of public concern. Given the fact that youth have a propensity to take risk by speeding leading to road crashes (Elander, West, & French, 1993) tailgating, dangerous acceleration, and rapid lane changes (Jonah, 1986; Preusser, Ferguson, Williams, Leaf, & Farmer, 1998) amongst other factors, therefore young drivers were selected for the present study.

The large number of vehicles on the roads has led to frequent congestion and growing incidence of road rage and dangerous driving, further leading to road traffic crashes, fatalities and injuries. The psychology of an individual in a driving context is quite under researched and underrated problem specifically in India (Chakraborty, Singh, Lal, & Tariq, 2009).

Dangerous driving can be termed as any unsafe driving act that jeopardizes one's own life or that of another road user. Due to lack of consensus on the terminology to be used for dangerous driving, much of the earlier work has focused on aggressive driving (Joint, 1995; Lajunen & Parker, 2001), with a variety of aggressive driving definitions being posited (Ellison-Potter, Bell, & Deffenbacher, 2001; Joint, 1995; Shinar, 1998). However, on deriving a common factor from all these definitions, it was found that all of them included aspects of behaviours and cognitive and/or emotional states that make the driving situation more dangerous. Dula and Geller (2004) highlighted the problem with defining driver aggression and pointed out aggression as being just one of the facets of dangerous driving. Dula and colleagues defined three major dangerous driving categories which included the intent to harm, negative cognitive/emotional experiences (such as anger, frustration, rumination) and risky driving (Dula & Ballard, 2003; Dula & Geller, 2004).

On the basis of research done abroad, sensation-seeking and impulsiveness have been found to be the significant contributors of dangerous driving (Arnett, 1996; Furnham & Saipe, 1993). Sensation-seeking is defined as a tendency to seek varied novel, complex, and intense sensations, and the willingness to take physical, social, legal and financial risks for the sake of such experiences (Zuckerman, 1994). Impulsiveness on the other hand involves a tendency to act on a whim, displaying behaviour characterized by little or no forethought, reflection, or consideration of the consequences (VandenBos, 2007). Sensation-seeking is found to be positively related with speeding where individuals high on sensation-seeking are more likely to speed, overtake and use shortcuts while driving (Jonah, 1997). Thus, sensation-seeking is one of the personality dimensions quite significantly and positively related with dangerous driving practices. Impulsiveness also has been associated with a variety of dangerous driving behaviours like drunk driving, not wearing a seat belt, impaired behaviour and reduced ability to perceive traffic signs (Hansen & Breivik, 2001; Stanford, Greve, Boudreaux, Mathias, & Brumbelow, 1996). Hence, the positive and significant relationship between sensation-seeking, impulsiveness and dangerous driving amongst young drivers makes it all the more imperative to be studied. As sensation-seeking and impulsiveness have been found to be significant variables in dangerous driving, the present study aimed to find the components of these two measures which contribute the most to dangerous driving behaviour.

2. Hypothesis

H1. Dangerous driving is expected to be positively correlated with boredom susceptibility, experience-seeking, disinhibition, thrill and adventure seeking, attentional, motor and non-planning impulsiveness for the overall sample and amongst both the groups of male and female drivers.

H2. Boredom susceptibility, experience seeking, disinhibition, thrill and adventure seeking, attentional, motor and non-planning impulsiveness are expected to significantly predict dangerous driving for the overall sample and amongst both the groups of male and female drivers.

3. Materials and method

3.1. Sample

The subjects for this study were four hundred drivers in the age range of 18–23 years. The data was collected from various colleges of Chandigarh, Panchkula and Mohali (India). Purposive sampling was used where the researcher went to various colleges and conducted the study where permission was granted. The researcher had limited time for data collection, i.e. one month in which four hundred participants could be contacted conveniently. The questionnaires were designed to be filled during the participants' classes. The students who met the inclusion criteria and were willing to participate in the study were recruited and were given the standardized questionnaires in groups. A deliberate attempt was made to recruit equal numbers of male and female drivers, i.e. 200 of each.

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