Psychological factors influencing young Iranian’s traffic behavior: driving in speed and using pedestrian signal crossing

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Introduction

• RTIs are the leading cause for death for 10 and 24 year-olds (United Nations, 2011).

• RTIs in Iran are 15 times higher than that in developed countries (Zargar, et al. 2004).
Introduction

• Driving in speed is one of the most common and the most fatal driving violations in Iran (Zadeh, et al. 2002).

• 40% of crashes involving pedestrians occur in pedestrian signal crossing (Tiwari, et al., 2007).
Introduction

TPB


- **Intention**: the motivation to engage in a specific behaviour

- **Behavioural Attitude**: a positive or negative evaluation of performing the behaviour

- **Subjective norm**: perceived social pressure to perform the behaviour

- **Perceived Behavioural Control**: the perception of being easy/difficult to perform the behaviour
Aims

• The relationship between intentions and its main constructs in driving in speed

• The relationship between intentions and its main constructs, in pedestrian signal crossing behaviour

• The relationship between intentions and its main constructs in pedestrian signal crossing behaviour with those in driving in speed

• How gender and educational level relates to intentions and its main constructs for both settings.
Method

• Subjects:
  • 188 young university students
    – Aged 19 to 25 years
    – mean age 22.7
    – 126 male and 62 female

• Instrument:
  – A TPB based questionnaire
Analyses

Factors relating to Intention:

• To comply with speed limit
  – Behavioural attitude ($\beta = 0.54$)
  – Perceived behavioural control ($\beta = 0.17$)

• To use pedestrian signal crossing
  – Behavioural attitude ($\beta = 0.46$)
Analyses

• Significant correlation between

*Intention to comply with speed limit*

&

*Intention to use pedestrian signal crossing*

(r = 0.27, p < 0.001)
Analyses

- **Gender difference in complying speed limit**
  - In Intention, women scored higher than men ($p < 0.01$)
  - In behavioural attitude women scored higher than men ($p < 0.01$)
  - In subjective norm women scored higher than men ($p < 0.05$)
  - No difference in perceived behavioural control

- **Gender difference in using pedestrian signal crossing**
  - In perceived behavioural control women scored higher than men ($p < 0.05$)
  - No difference in behavioural attitude & subjective norm
Analyses

• Significant correlation of Level of Education with
  • Intention to comply with speed limit
  • Perceived behavioural control in compliance with speed limit
  • Intention to use pedestrian signal crossing
  • Behavioural attitude in using pedestrian signal crossing

However, none were significant in regression analyses
Discussion

- Behavioural Attitude and perceived behavioural control predict Intention to comply with the speed limit.

- Attitude was the strongest predictor for intention.

- Behavioural Attitude predict intention to use pedestrian signal crossing.
Discussion

Those people who had higher motivation to comply with speed limit also had higher motivation to use pedestrian signal crossing.
Discussion

• The level of education do not play any role neither on the motivation to comply with the speed limit nor to use pedestrian signal crossing.

Beliefs play more important role than education in motivation to perform safe traffic behaviour.
Discussion

• Women in comparison to men perceived themselves more in control of using pedestrian signal crossing when crossing roads.

Women felt easier to use pedestrian signal crossing.
Discussion

• Young women had higher intention to comply with the speed limit, hold a more positive view for that, felt higher pressure from significant others to comply with the speed limit.

• In previous research:
  Men have higher intention to speed than women, and that women felt less likely to be approved by others when speeding[Conner, et al., 2003; Horvath, et al., 2012].
Implications

• Designing the TPB based anti-speeding messages on reducing speeding.

• Messages on the positive evaluation of complying with speed limit specially for young men drivers.

• Messages on having control over behaviour may increase motivation to perform safe traffic behaviour.