# Examining Attitudes Towards Safe Speed to Protect Pedestrians

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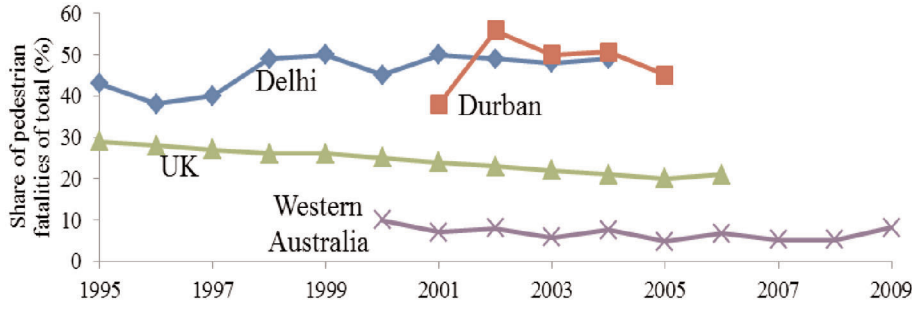
## ABSTRACT

Share of night time pedestrian fatalities has been associated with human factors for many years. The focus of the present paper aims to examine the option of introducing 40km/h night zone speed limit. Particularly targeting the 60km/h limit roads to further protect pedestrians. Questionnaires of the study were distributed to a random sample of four groups. Australians (born in Australia) and three others, Australians born in different countries and belongs to Africa, Asia and Europe. The Questionnaires were related to preference of introducing 40km/h during the night (Night Zone) and also related to the delay concerns of introducing 40km/h during the day (Day Zone). The total number of participants in the study is 300 of the four groups. Each group has 75 participants. The study utilized age, gender and marital status as independent variables. Literature search has found different pedestrian fatality trends of the four cultural groups some are ascending and the others are descending. Therefore the study hypotheses that cultural groups living in Perth are different in terms of their attitudes towards the preference Night Zone and the delay concerns of the Day Zone. Acceptance of the Night Zone preference reached 64 % whereas; the mean rate responses reached 74 % for the Day Zone delay concerns. It was learned from results that attitudes differences existed between the cultural groups on both Night Zone and Day Zone options as hypothesised. Result showed that Asian group recorded the lowest rate for the Night Zone preference and cluster analysis depicted that clearly. There was statistically significant difference on drivers obeying the sign limit, between Asian and two groups namely African and Australian. Similarly cluster analysis performed for the Day Zone, indicated that European group was away from the rest of the clustered groups showing less concerns of implementing the Day Zone option on particular issue and that is, "European group do not believe that the delay is caused by the 40km/h speed limit but rather they believe it is due to the traffic signals". Australian group were the most concern about implementing the Day Zone

limit, as they recorded the highest mean rate response 77 %. There was statistically significant difference between singles and non-singles on the preference of Night Zone differences. A statistical difference was also found between male drivers who believe that 40km/h during the day is too slow compared to female drivers. The 18-29 years age group was the most concern about the Day Zone implementation compared to other age groups. Surprisingly, they also recorded the lowest mean response rate for the implementation of 40km/h Night Zone limit of all age groups. They reveal their attitudes against implementing of the 40km/h limit all together and preferring to leave the 60km/h speed limit unchanged. Details of Multivariate Analysis of Variance (MANOVA) are included throughout the analysis. Some analysis, results and conclusions of this paper are valuable and useful for practitioners for exposing the ideas of drivers. Knowing that the Arab Gulf Countries particularly the Kingdom of Saudi Arabia is a host to many expatriates who are road users (drivers or pedestrians) contributing to pedestrian fatalities.

## 1. INTRODUCTION

Night time pedestrian fatalities have been associated with human factors for many years. Many authorities have made a long stretch of successes in road safety, particularly in reducing pedestrian fatalities and clearly in developed countries i.e. USA, Europe and Australia. This issue is continuing to be of alarming concern for many Asian countries, India, Pakistan, many countries in Africa and the Middle East. One common cluster concern which is still persisting for most of the countries is night time pedestrian fatalities. There are 200,000 pedestrians killed at night each year worldwide, [1]. These types of accidents showed resilient to reduction [2] & [3]. A recent research on time of the day, reported that the first few hours of the night are when most pedestrian fatalities occur, [4]. A more specific literature search found that pedestrian fatalities vary from continent to the other and from country to the other. Figure 1 below shows four places each belongs to one of the four groups under study and are having different pedestrian share of fatality rate and trends.




Sources: [5], [6], [7] & [8]

Figure 1. Share of pedestrian fatalities of total