# Insights of driver's behavior on hydraulic horn use in motor vehicles of Dhaka city

**Nasrin Akter[1], Bilkis Banu[1,2], Sujana Haque Chawdhury[1], Kazi Rakibul Islam[1], Tanjeerul Islam[1], Sarder Mahmud Hossain[1]**

**[1]Department of Public Health, Northern University Bangladesh (NUB), Dhaka, Bangladesh**

**[2]Heidelberg Institute of Global Health, Heidelberg University, Germany**

**Dr. Nasrin Akter, Lecturer, NUB, Email: nasrin.ddc@gmail.com, Phone: +880-1675746599**

## Background:

- Hydraulic horn use in motor vehicles is a neglected issue in Bangladesh.
- It is a dominating factor for the road traffic noise pollution as well as the health-related consequences.


Image source:
1. https://www.daily-sun.com
2. https://www.dhakatribune.com/

World Health Organization (WHO):

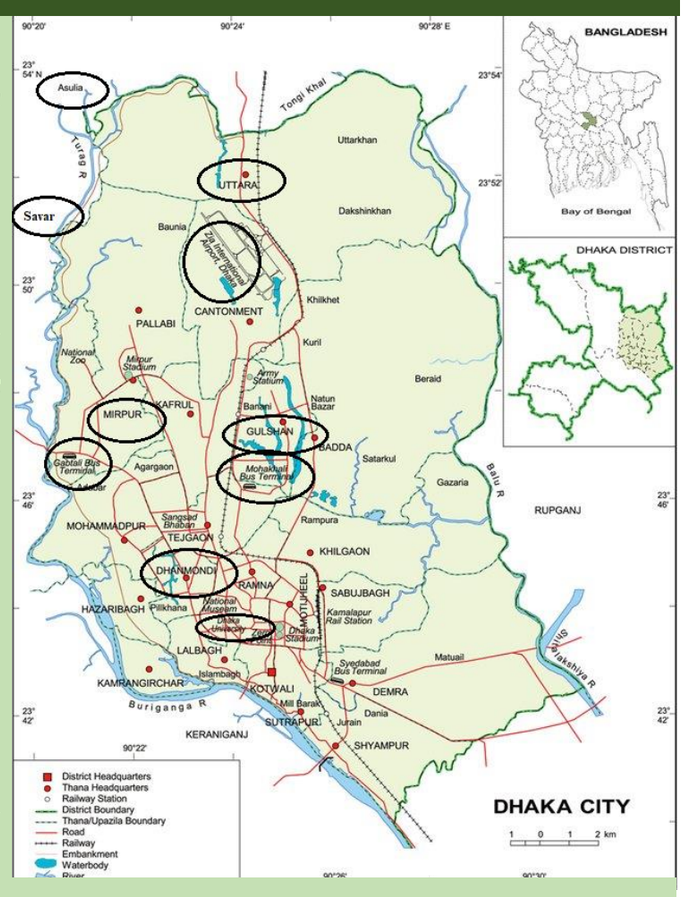
- 60 dB sounds make a man deaf temporarily;
- 100 dB sounds can cause complete deafness;
- The noise of the streets in Dhaka has been estimated at 60 to 80 dB;
- The sound of hydraulic horns measured 95 dB.*

## Purpose:

- To identify the crucial determinants and predictors provoking the hydraulic honking behaviors among motor vehicle drivers.

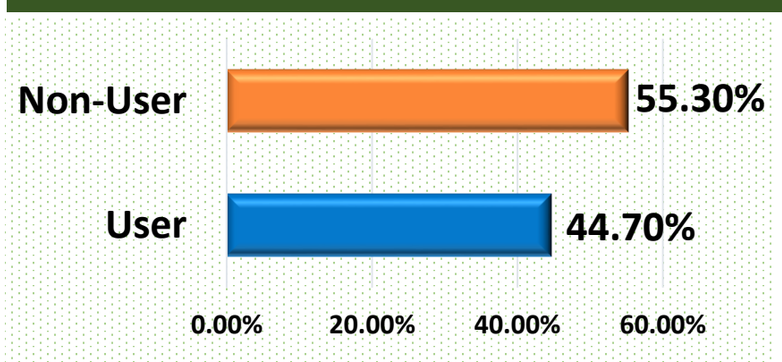
## Method:

- **Study type & design:**
  - Descriptive type of cross-sectional study.
- **Study area:**
  - Ten randomly selected zones of Dhaka city, i.e. which were Uttara, Ashulia, Savar, Shahbag, Motijhil, Dhanmondi, Banani, Gulshan, Mirpur and Gulistan.




- **Sampling method:**
  - 206 adult drivers who were willing to participate
  - Systematic Random Sampling technique
- **Data collection method and instrument**:
  - Face-to-face interview
  - semi-structured and pre-tested questionnaire.
- **Analysis:**
  - Results were analyzed through the univariate and multivariate procedures.

## Results:




- Almost half of the respondents (44.7%) were identified as hydraulic horn users.

Figure-1: Behavior of hydraulic horn using status among the drivers of Dhaka city (n= 206)

- About half of the respondents (48.5%) were found below 30 years of age and had monthly family income below 20000 BDT (43.2%).
- Most of the subjects (61.2%) had primary education and driving experience ≤ of 9 years.
- Respondents belonged <30 years of age (AOR= 5.81, p < 0.01); who were married (AOR= 2.81. p=0.01) and did not have any formal education (AOR= 10.6, p<0.01) were found more likely to use the hydraulic horn in the motor vehicles.

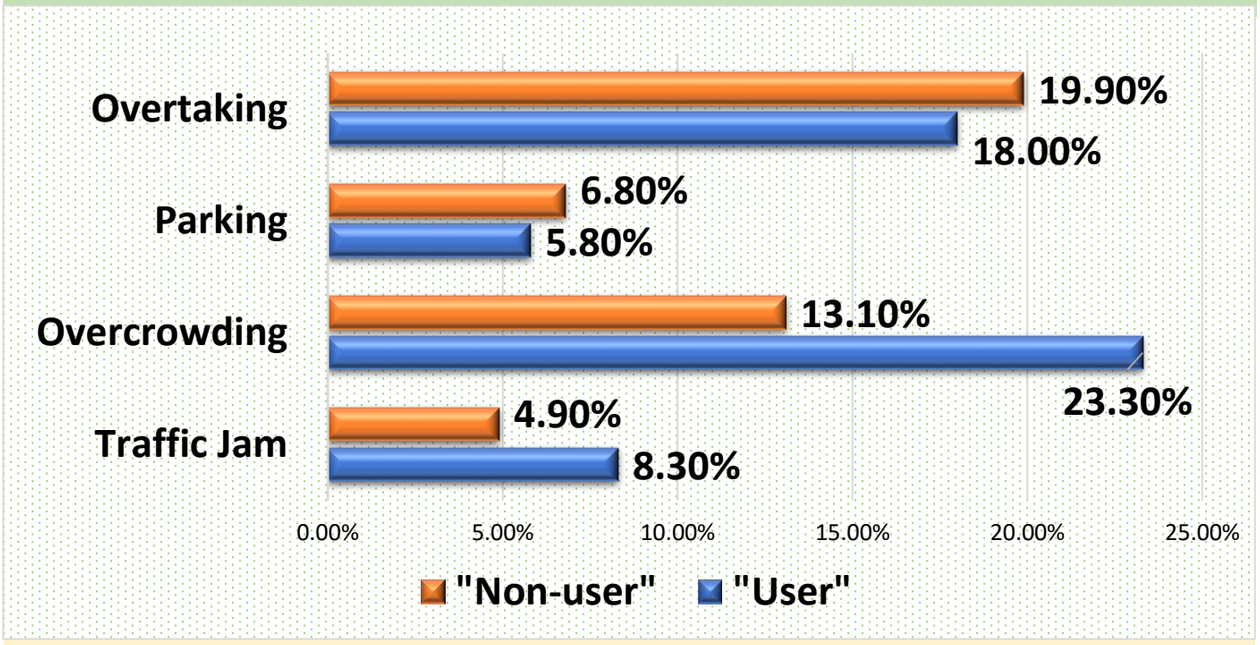



Figure 2: Drivers horn using behavior associated with horn using situations.

- Most of the drivers used hydraulic horn during overcrowding (23%) and traffic jam (8.30%) situations compare to non-users.

## Conclusion & Recommendations:

- Remarkable amount of drivers are using hydraulic horn in their vehicles thus more surveys need to combat this issue as well as the consequences.
- Hydraulic horns should be banned completely to minimize the health-related consequences due to noise pollution.
- Effective interventions need to apply considering the predictors associated with the driver's risky behaviors on hydraulic honking to minimize the issue.

## References:

* Express T. Hydraulic horn causes serious harm to children: Experts [Internet]. The Financial Express. 2021 [cited 25 June 2019]. Available from: https://thefinancialexpress.com.bd/public/index.php/health/hydraulic-horn-causes-serious-harm-to-children-experts-1559211953.