



## The Role of Traffic and Road Accidents in Causing Disabilities in Iran

**Habibolah KHAZAIE<sup>1</sup>, \*Ali ZAKIEI<sup>1</sup>, Mohsen REZAEI<sup>1</sup>, Serge BRAND<sup>2,3,4</sup>, Saeid KOMASI<sup>5</sup>**

1. Sleep Disorders Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran
2. Substance Abuse Prevention Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran
3. Psychiatric Clinics (UPK), Center for Affective, Stress and Sleep Disorders (ZASS), University of Basel, Basel, Switzerland
4. Department of Sport, Exercise and Health, Division of Sport Science and Psychosocial Health, University of Basel, Basel, Switzerland
5. Clinical Research Development Center, Imam Reza Hospital, Kermanshah University of Medical Sciences, Kermanshah, Iran

\*Corresponding Author: Email: zakieiali@yahoo.com

(Received 09 Mar 2019; accepted 25 Mar 2019)

### Dear Editor-in-Chief

Disability is an undeniable fact which has been present for a long time as a social phenomenon in different societies. Despite this fact, the concept of disability has been defined by WHO in the international classification as functional and health disability as a supporting term for damages, functional limitations, and participatory restrictions (1). Disabilities have various causes, among which we can mention traffic injury and road collisions. According to the WHO, car crash and injuries are the main reason behind the death and disability for ages between 3 and 35 years (2). Traffic injuries and road collisions are one of the main reasons behind the disability and hospitalization of people, causing tremendous economic and social pressures (3).

Various factors such as the increasing number of vehicles, increasing population, poor infrastructure, and safety defects of roads affect the number of road crash. Therefore, as time goes by, the epidemiology of traffic accidents varies significantly, creating the need for epidemiological studies of traffic injuries so that by analyzing their various aspects we can take more appropriate measures to prevent them. On the other

hand, disability has numerous consequences for the disabled and their families due to the severe and constant physical difficulties and mental and social limitations and pressures. Therefore, the first step in this regard is prevention, and prevention can be successful only if we obtain accurate scientific information about the reasons behind disabilities and the role of preventable injuries such as traffic crash in causing these disabilities. Based on these considerations, the current study has been carried out to investigate the role of traffic injuries in causing disabilities in Kermanshah Province. This descriptive-survey study was carried out in 2017 in Kermanshah Province (in western Iran) using a cross-sectional approach. In order to perform this study, 10,150 households living in urban and rural areas of Kermanshah Province from different age and gender levels were selected using cluster method and were studied. The clustering criteria were based on the statistical blocks of the latest census carried out by the Statistical Organization of Iran. In each city district, the sample size was selected based on the proportion of the population, i.e. the



population ratio of each city district was considered in the selected sample.

After training the researchers, each one of them took responsibility for gathering data from areas they were familiar with. After entering the area, they would start from the first house, knock on the door and start filling out the questionnaire and carrying out the interview. At this stage, using two sets of questionnaires made by the research team, along with observation and clinical interview, the researchers would identify and diagnose various types of disabilities.

In this study, ethical principles such as informed consent and ensuring confidentiality of the information were followed.

Among the studied sample, 461 individuals are disabled and the cause of disability for 31 people (6.7%) was road collisions and car injuries. In other words, in Kermanshah Province, car injuries account for 6.7% of disabilities. Among individuals disabled due to car crash, 74.2% are male and 90.3% are living in urban areas. Their average age was  $41.8 \pm 12.6$  and about 52% of them are 30 to 45 yr old. According to the results of the study, car injuries lead to visual impairments in 6.5% of cases, hand amputation in 3.2% of the cases, hand defects in 16.1% of the cases, leg defects in 32.3% of the cases, torso defects in 3.2% of the cases, mental-psychological disabilities in 6.5% of the cases, spinal injuries in 22.6% of the cases, and other disabilities in 12.9% of the cases. In other words, traffic crash and road collisions play a more significant role in causing disabilities such as leg defects and spinal injuries.

Previous studies have often focused on the death toll of car injuries and neglected the issue of disabilities. This is while disabled people incur high

social, economic, and health care costs. The results of a study in Saudi Arabia show that 63.19% of victims of road crash injure their heads and necks (4), which conflicts with the results obtained from the current study. Disabilities caused by road injuries have different patterns in various countries. However, studies on this issue are rare and this issue required more detailed studies. It is recommended that the consequences of car injuries be considered from public health as other diseases such as cardiovascular diseases, cancer, and so on and necessary measures be taken to prevent them.

### Conflict of interest

The authors declare that there is no conflict of interest.

### References

1. Lucas-Carrasco R, Eser E, Hao Y, et al (2011). The Quality of Care and Support (QOCS) for people with disability scale: development and psychometric properties. *Res Dev Disabil*, 32: 1212-25.
2. Duperrex O, Bunn F, Roberts I (2002). Safety education of pedestrians for injury prevention: a systematic review of randomised controlled trials. *BMJ*, 324: 1129.
3. Bahadorimonfared A, Soori H, Mehrabi Y, et al (2013). Trends of fatal road traffic injuries in Iran (2004–2011). *PLoS One*, 8: e65198.
4. Barrimah I, Midhet F, Sharaf F (2012). Epidemiology of road traffic injuries in qassim region, saudi arabia: consistency of police and health data. *Int J Health Sci (Qassim)*, 6: 31-41.