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People Present at Road Traffic Crash Scene: Challenges in Defining and Categorising

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Dear Editor,

One of the main ways to reduce deaths and injuries after road traffic crashes are quick relief, treatment and transfer of the victims to specialised treatment centers [1]. Studies have shown that unreasonable gathering of people at the crash scene are among the factors that affect the process of helping the victims of road traffic crashes [2-5].

Two groups of people are usually present at the crash scene. The first group are member from public those who come to the crash scene and call for help from relief agencies [2,6]. People present at road traffic crash scene can play different roles, including bystander, laypeople, and first responder [7]. The second group who attend the road traffic crash scene as first responders are usually relief agencies and trained to render basic emergency care [5].

In past studies, no comprehensive and resolute definition has been given for categorising people at road traffic crash scene [8-12]. The World Health Organisation (WHO) considers all those who attend at road traffic crash scene and have no training regarding aid and relief as bystander. WHO highlights the importance of training for this group in order to make them primary responders [2,7]. Other related studies have regarded people present at the road traffic crash scene as laypeople (layperson and layman) [2,8,13].

Thus, proper definitions and clear roles will help to better understand the location and performance of people on the traffic crash scene. Based on the literature, the role of people with respect to their impact on the road traffic crash scene can be classified as follows:

1. "Bystander" is defined as a person who is present at the crash scene but does not play any role and is a mere spectator [14]. These people usually stay at the scene for their curiosity and sometimes cause a new road traffic crash or hinder the timely arrival of relief organisations to the crash site.
2. "Laypeople" is defined as one who is not intimately familiar with a given subject or activity [15,16]. These people are also called layman, layperson, lay public and member from public. In the other words, there are some people who attend at the crash scene but have no knowledge and awareness about relief, rescue and first aid to the victims or "Laypeople" refers to community members who have no professional certificate or health education degree [16].

By their gathering at the crash scene, laypeople hinder prompt and appropriate operations of relief organisations to the victims. They may also try to help the victims despite having no knowledge about the relief and aid process. Laypeople, a crowd at the crash scene may result in wasting critical time in providing effective care and also, in some circumstances, may contribute to secondary injuries for the victims and even lead to a new crash [5]. Its worth mentioning that if a person attends crash scene as a bystander and prevent appropriate aid to the victims and try to help them without having the necessary

knowledge, he/she will be considered a lay bystander.

3. "First responder" is defined in theoretical and literal definitions, as trained people that are able to provide primary medical care and relief to the injured at the time of an crash [17]. In practice, first responders are all individuals and aid workers with necessary training to help, relief, and manage road traffic injuries, such as pre-hospital emergency personnel, Red Crescent workers and all individuals who have passed courses of first aid and initial measures to preserve life. People must have the necessary training about basic level of pre-hospital trauma care will be regarded as first responders if they attend at the crash scene and take appropriate measures for helping the victims.
4. "Lay first responder" has rarely used in the literature, and refers to first responders with not having enough first aid skills to appropriate aid and transfer of injured [18]. In other words, aid organisations workers that have no skill regarding life support for trauma victims are lay first responders. For e.g., police, members of Red Crescent, firefighter and road maintenance organisation who despite having no training about basic life support for trauma victims, attempt to help the victims and in some cases, incur more injury to them unintentionally, can be categorised in this group.

Accepting the fact that in most cases, people are the first to be present at the crash scene and that time is important factor in helping victims and reducing deaths and injuries [2,19]. Therefore, paying attention to the optimal use of this people's presence and training by increasing the number of laypeople to first responders can have a significant impact on the reduction of the complications caused by road traffic crashes.

REFERENCES

- [1] Mock C. Guidelines for essential trauma care: World Health Organization. 2004. Available from: http://apps.who.int/iris/bitstream/10665/42565/1/9241546409_eng.pdf. Accessed Sep 29, 2017.
- [2] Khorasani-Zavareh D, Khankeh HR, Mohammadi R, Laflamme L, Bikmoradi A, Haglund BJ. Post-crash management of road traffic injury victims in Iran. Stakeholders' views on current barriers and potential facilitators. *BMC Emer Med.* 2009;9(1):8.
- [3] Alinia S, Khankeh H, Maddah SS, Negarandeh R. Barriers of pre-hospital services in road traffic injuries in Tehran: The viewpoint of service providers. *Int J Community Based Nurs Midwifery.* 2015;3(4):272-82.
- [4] Hall A, Wootton K, Hutton A. Bystander experiences at and after a motor vehicle accident: A review of the literature. *Australasian J Paramed.* 2013;10(4):1-10.
- [5] Haghparast-Bidgoli H, Hasselberg M, Khankeh H, Khorasani-Zavareh D, Johansson E. Barriers and facilitators to provide effective pre-hospital trauma care for road traffic injury victims in Iran: a grounded theory approach. *BMC Emer Med.* 2010;10(1):20.
- [6] Pallavisarji U, Gururaj G, Girish RN. Practice and perception of first aid among lay first responders in a southern district of India. *Archives of trauma research.* 2013;1(4):155.
- [7] Mohan D. Road traffic injury prevention training manual: World Health Organization; 2006. Available from: http://www.who.int/violence_injury_prevention/publications/road_traffic/world_report/factsheets/en. Accessed Sep 29, 2017.

- [8] Campbell ML, Templin TN. RDOS-family: a guided learning tool for layperson assessment of respiratory distress. *J Palliat Med.* 2014;17(9):982-83.
- [9] Merchant A, Outhay M, González-Calvo L, Moon TD, Sidat M, Taibo CLA, et al. Training laypersons and hospital personnel in basic resuscitation techniques: an approach to impact the global trauma burden in Mozambique. *World J Surg.* 2015;39(6):1433-37.
- [10] Murad MK, Husum H. Trained lay first responders reduce trauma mortality: a controlled study of rural trauma in Iraq. *Prehosp Disaster Med.* 2010;25(6):533-39.
- [11] Pergola AM, Araujo IEM. The layperson in emergency situation. *Revista da Escola de Enfermagem da USP.* 2008;42(4):769-76.
- [12] Tiska M, Adu-Ampofo M, Boakye G, Tuuli L, Mock C. A model of prehospital trauma training for lay persons devised in Africa. *Emerg Med J.* 2004;21(2):237-39.
- [13] Callese TE, Richards CT, Shaw P, Schuetz SJ, Issa N, Paladino L, et al. Layperson trauma training in low- and middle-income countries: a review. *J Surg Res.* 2014;190(1):104-10.
- [14] Hansen CM, Kragholm K, Granger CB, Pearson DA, Tyson C, Monk L, et al. The role of bystanders, first responders, and emergency medical service providers in timely defibrillation and related outcomes after out-of-hospital cardiac arrest: results from a statewide registry. *Resuscitation.* 2015;96:303-09.
- [15] Laypeople. *Cambridge Dictionary.* Available from: <http://dictionary.cambridge.org/dictionary/english/layperson>. Accessed May 7, 2017.
- [16] Orkin AM, Curran JD, Fortune MK, McArthur A, Mew EJ, Ritchie SD, et al. Health effects of training laypeople to deliver emergency care in underserved populations: a systematic review protocol. *BMJ Open.* 2016;6(5):e010609.
- [17] Powers R, Daily E. *International disaster nursing: Cambridge University Press; 2010.* Available from: <https://books.google.com/books?hl=en&lr=&id=xGiDNuVj1lgC&oi=fnd&pg=PR13&dq=Powers+R,+Daily+E.+International+disaster+nursing:+Cambridge+University+Press%3B+2010.&ots=7XWfGGStbL&sig=RLLjcvBmw4HjBxyjNv1SNTDGPWM#v=onepage&q&f=false>. Accessed Sep 29, 2017.
- [18] Callese TE, Richards CT, Shaw P, Schuetz SJ, Issa N, Paladino L, et al. Layperson trauma training in low-and middle-income countries: a review. *J Surg Res.* 2014;190(1):104-10.
- [19] Pelinka LE, Thierbach AR, Reuter S, Mauritz W. Bystander trauma care—effect of the level of training. *Resuscitation.* 2004;61(3):289-96.

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Start studying Chapter 12-Traffic Crash Investigations. Learn vocabulary, terms and more with flashcards, games and other study tools. Park the vehicle in the road to block oncoming traffic from the crash scene and place flares/cones in front of and behind the involved vehicles. The patrol vehicle placement on scene does what? provides a physical barrier and a warning device for re-routing other road users when flares/cones aren't available. What is the purpose of a roadblock? Residential areas, schools and playgrounds. If EMS is not present when you arrive what is a LEO's responsibility? making sure EMS is on the way. What is your role when dealing with people just involved in a crash and are emotional? you are to stay calm and empathetic. N3TC as part of their road safety campaign. The N3 Toll Route is one of the busiest roads in South Africa. Tens of thousands of trucks move up and down the N3 daily – they constitute more than 30% of traffic and carry an average of 50-million tons of freight along this corridor per annum. Daily commuters and leisure travelers also make use of this route which traverses four provinces, namely Gauteng, Mpumalanga, Free State and KwaZulu-Natal. At peak times, traffic volumes can increase to well over 2,000 vehicles per hour. N3TC monitors traffic patterns, all incidents and crashes along the N3 Scene Inspection The crash scene inspection included taking pictures of the roadways and vehicle paths, as well as final rest positions of the vehicles if they were still on-scene. In addition, photos were taken of any scene evidence, such as skid marks, debris or gouges in the roadway. Figure 4 presents these crashes by crash type. Database Design While in the field, JPRI researchers used forms to document all the information they collected on-scene and at vehicle inspections. LIMITATIONS Collecting real-world crash data creates a unique set of challenges and limitations for researchers. JPRI investigators were reliant on local police for notification of crashes. This means that JPRI data is a sample of crashes that police were aware of, not all crashes.