A Short Review on Unintentional Injuries in Pediatric Population of Pakistan

Emad Uddin S* and Syed Muhammad M

Department of Emergency Medicine, Aga Khan University Hospital, Karachi, Pakistan

Introduction

Unintentional injuries are a leading cause of death in childhood globally [1]. They kill approximately 830 000 children every year, and more than 95% of child injury deaths (both intentional and unintentional) occur in low- and middle-income countries (LMICs) [2]. Injuries lead to emotional trauma and financial burden for children, parents, and society [1]. Globally, they accounted for 15.4% of about 2.6 million deaths recorded among children aged 1 to 14 years in 2013 [3]. Unintentional injuries are a major contributing factor in causing disability or deaths in children in all parts of world.

Pakistan carries a high burden of unintentional injuries in pediatric population with mortality rate of 0.68/1000 every year. The National Health Survey of Pakistan (NHSP) is the first survey database on unintentional injuries but is limited only to morbidities. We have collected and combined the information from the published data to enhance our understanding towards unintentional injuries and the steps to overcome them.

Rationale

A lot of data has been published on unintentional injuries but still Pakistan is facing a high mortality rate due to these domestic injuries. Our aim is to sum up all the common injuries and bring our attention to overcome these problems.

Objective

The purpose of our study is to collect and review the existing data on unintentional injuries and take steps to overcome them.

Literature Review

In Pakistan, children constitute 43% of the population and annually 1.1 million of unintentional injuries occurs in this population which makes an important preventable cause of mortality and morbidity [4,5]. The 5 most common unintentional injuries reported by the World Health Organization (WHO) are road traffic injuries (RTIs), falls, burns, drowning, and poisoning [2]. According to some studies; 72% to 84.4% of injuries mostly occur at home most of them were caused due to fall from height (54%) [6-8]. This in case due to extended exposure to home environment and children require dependency especially up to 5 years of age. The following are the retrieved data from previous studies on each of the above mentioned unintentional injuries.

Fall

Fall-related injuries are a health burden in Pakistan, especially in children under 15 years of age [9]. A community-based survey from Pakistan carried out in suburban and rural communities also showed that fall injuries were the predominant cause of injuries in all age groups with a prevalence of 10.5 fall injuries per 100 child years of exposure [10]. Besides, 94% of all pediatric falls occur at or around the child's home [11].

Poisoning

It has been showed that poisoning is in its increasing pattern in Pakistan with estimated range of 21.5% to 77.0% for non-fatal injuries; while self-inflicted poisoning ranges from 18% to 70% and homicidal

poisoning from 1.8% to 5% from previous reports; most common being through organophosphates, tranquilizers especially benzodiazepines and narcotics [12]. Fortunately, about 75% of household stores contain poisons in locked cabinets according to a study [13].

Drowning

Globally, the highest drowning rates are among children 1-4 years, followed by children 5-9 years [14]. Another study on injuries among children, based on emergency medical transportation provider data from October 1993 to January 1996 in Karachi reported a total of 1,320 cases of injuries in children 15 years or under, and reported that drowning was responsible for 3% of injuries [15].

Burn

There is disagreement in the literature; according to some, children are the most vulnerable group, accounting for almost 50% of all burn patients whereas Othman et al. reported that approximately one third of victims were children, most common being due to flames and scalds but electrical and chemical burn injuries were also found to be common carrying a significant risk of mortality and morbidity with permanent disability [16].

Road traffic injuries

According to a study conducted in Rawalpindi, RTA injuries accounted for 31.7% of all injuries among which children aged 0-14 years were suffered more especially females as compared to males [17]. It was found that driver's fault contributed more in pedestrian fatalities and injuries compared to mechanical failures. Mostly over-speeding and reckless driving (combined) are the major causing factors in the driver's fault [18].

Conclusion

All unintentional injuries can be preventable by increasing the supervision of parents and educating them about the risks involved and as Pakistan being a high-risk country we should take necessary steps to ensure safety of the children.

References

1. Faruque AV, Khan MA (2016) Unintentional injuries in children: Are our homes safe? J Coll Physicians Surg Pak 26: 445.
2. He S, Lunnen JC, Puvanachandra P, Zia N, Hyder AA (2014) Global childhood unintentional injury study: Multisite surveillance data. Am J Public Health 104: e79-84.

*Corresponding author: Emad Uddin S, Department of Emergency Medicine, Aga Khan University Hospital, Karachi, Pakistan, Tel: 922134861180; E-mail: emaduddin.siddiqui@aku.edu

Received June 12, 2017; Accepted July 18, 2017; Published July 25, 2017

Citation: Emad Uddin S, Syed Muhammad M (2017) A Short Review on Unintentional Injuries in Pediatric Population of Pakistan. Prim Health Care 7: 275. doi: 10.4172/2167-1079.1000275

Copyright: © 2017 Emad Uddin S, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

3. Alonge O, Khan UR, Hyder AA (2016) Our shrinking globe: Implications for child unintentional injuries. *Pediatr Clin North Am* 63: 167-181.
4. Razzak JA, Luby SP, Laflamme L, Chotani H (2004) Injuries among children in Karachi, Pakistan - What, where and how. *Public health* 118: 114-120.
5. Fatmi Z, Kazi A, Hadden WC, Bhutta ZA, Razzak JA, et al. (2009) Incidence and pattern of unintentional injuries and resulting disability among children under 5 years of age: Results of the National Health Survey of Pakistan. *Paediatr Perinat Epidemiol* 23: 229-238.
6. Zia N, Khan UR, Razzak JA, Puvanachandra P, Hyder AA (2012) Understanding unintentional childhood home injuries: Pilot surveillance data from Karachi, Pakistan. *BMC Res Notes* 5: 37.
7. Siddiqui E, Ejaz K, Siddiqui U (2012) Unintentional, paediatric domestic injury in a semi-rural area of Karachi. *J Pak Medl Assoc* 62: 638.
8. Bachani AM, Ghaffar A, Hyder AA (2011) Burden of fall injuries in Pakistan-analysis of the National Injury Survey of Pakistan/Charge des traumatismes par chute au Pakistan-analyse de l'enquête nationale sur les traumatismes. *East Mediterr Health J* 17: 375.
9. Fayyaz J, Wadhvaniya S, Shahzad H, Feroze A, Zia N, (2015) Pattern of fall injuries in Pakistan: The Pakistan National Emergency Department Surveillance (Pak-NEDS) study. *BMC Emerg Med* 15: S3.
10. Khan NU, Pérez-Núñez R, Shamim N, Khan UR, Naseer N, (2015) Intentional and unintentional poisoning in Pakistan: A pilot study using the emergency departments surveillance project. *BMC Emerg Med* 15: S2.
11. Rehmani R, LeBlanc JC. Home visits reduce the number of hazards for childhood home injuries in Karachi, Pakistan: A randomized controlled trial. *Int J Emerg Med* 3: 333-339.
12. WHO Fact Sheet, "Drowning". WHO. May, 2017.
13. Shaikh MA (2016) Epidemiology of drowning and near drowning at Karachi beaches from 2012 to 2014. *J Pak Medl Assoc* 66: 602-605.
14. Ali SA, Hamiz-ul-Fawwad S, Al-Ibran E, Ahmed G, Saleem A, et al. (2016) Clinical and demographic features of burn injuries in Karachi: A six year experience at the burns centre, civil hospital, Karachi. *Ann Burns Fire Disasters* 29: 4.
15. Farooq U, Bhatti JA, Siddiq M, Majeed M, Malik N, et al. (2011) Road traffic injuries in Rawalpindi city, Pakistan/Traumatismes dus aux accidents de la circulation dans la ville de Rawalpindi (Pakistan). *East Mediterr Health J* 17: 647.
16. Zia Y, Sabir M, Saeed IU (2014) Pedestrian injuries and fatalities by patterns in reported road traffic crashes-Islamabad. *J Pak Med Assoc* 64: 1162-1165.