Public Health Lesson from Shanghai New Year’s Eve Stampede

Yuee Huang1,2, Tan Xu3,4, *Wenjie Sun5,6

1. Dept. of Preventive Medicine, School of Public Health, Wannan Medical College, Wuhu 241001, China
2. Laboratory for Environment and Health, School of Earth and Environment, Anhui University of Science and Technology, Huainan 231001, China
3. Dept. of Epidemiology, School of Public Health, Medical College of Soochow University, Suzhou 215123, China
4. Dept. of Epidemiology, School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA 70112, USA
5. School of Food Science, Guangdong Pharmaceutical University, Zhongshan 528458, China
6. School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA 70112, USA

*Corresponding Author: Email: wsun3@tulane.edu

(Received 20 Apr 2015; accepted 11 May 2015)

Dear Editor-in-Chief

On December 31, 2014, millions of people gathered in Chen Yi square, Shanghai (China's most populous city) in celebration of the New Year Eve, left at least 35 people dead and 42 injured in a stampede (1).

Actually, human mass gathering poses challenges for public health (2). Stampedes were identified as a risk for death that could occur when human mass-gathering (3). The Shanghai New Year’s Eve stampede almost shared all the risk factors of fatal stampede identified by previous study, e.g. in developing country, high crowd densities, the rising fervor of a celebration, the handout of scarce resources, and inadequate security measures (4).

However, the prevention of the stampede has received little scientific attention and remains unclear. For example, there is no study addressed stampede issue from a public health perspective. Lab experimental study on the mass gathering contributed many models to explain the stampede such as, sudden transitions from laminar to stop-and-go and "turbulent" flows (5). However, without considering human’s behavior e.g. panic behavior, limited the prediction capacity of the simulation models (6). The possible mechanism is the misunderstanding information, which could result in panic among the crowd population. In addition, most stampede study’s data were based on news reports, which might be inaccuracies for scientific study. Hence, epidemiological study on human stampedes is warranted. Given the unique nature of stampede events, it is imperative to prevent better stampede.

The lessons learnt from other counties still can be of value, although there is some different in the epidemiological features of human stampedes in other countries, e.g. religious factor (7). According to the previous study, which compared the survivors and non-survivors in a stampede and found on-site resuscitation and triage absent, can reduce the chance of identifying potential survivors at the scene (8). Hence, proper documentation and preparing of the proceedings of the event could reduce potential risk. Moreover, the authority should let the public know the potential risk of human mass-gathering and protect measurement in the stampede, improving monitoring crowd events and spontaneously transparency communication between the government and people, if stampede.

Acknowledgements

Yuee Huang would like to thank the Provincial Natural Science Foundation of Colleges and Universities in Anhui Province under Grant (No. 1021-1022) for their support. Available at: http://ijph.tums.ac.ir
KJ2013B306) and the project of the quality engineering projects of Colleges and Universities in Anhui Province (No. 2014jyxm216), for providing financial support. Dr. Tan Xu would like to thank Fogarty International Center of the National Institutes of Health under NIH grant D43TW009107, for providing financial support for the research in USA.

References


