

Letter to Editor: Different Perception, Different Behavior, Necessity of Consensus Over “Risk” Term



Citation: Safi Keykaleh M, Khorasani Zavareh D, Safarpour H, Gholamnia R. Different Perception, Different Behavior, Necessity of Consensus Over “Risk” Term. *Health in Emergencies and Disasters Quarterly*. 2018; 3(3): 121-122 .
<https://doi.org/10.29252/NRIP.HDQ.3.3.121>

doi: <https://doi.org/10.29252/NRIP.HDQ.3.3.121>

Humans experience different danger situations every day and encounter many hazards consciously or unconsciously; sometimes they have to do things with high risk, for example, driving has many probable dangers, but it is unlikely to find a person who does not drive [1, 2]. The term “risk” have different origins in different cultures and its origin could not be determined clearly, thus people can perceive it differently. This word is often used in everyday common words. Any individual uses this term on the basis of the importance of the subject and how it can be challenged [3-5].

In the 1980s and 1990s, the concept of danger was confined to the field of natural disasters and disaster management was meant to limit the extent of the consequences and the vulnerability to hazards [6]. However later on, the term “risk” was used in various areas such as natural disasters, human disasters (including; crime, health-related consequences, traffic accidents, air pollution and terror), different sciences (including insurance and economics, psychology and statistics) [5-10]. The risk in any field has a different meaning, for example, “risk” in economic fields refers to both benefit and loss [6, 8]. The term “risk” in technological fields is defined as a deadly threat [5], so that in the industrial countries if the risks of various chemical plants left unmanaged, besides deadly pollutions to the water resources and the environment, the economic losses will be enormous [11]. This issue has made risk assessment and appraisal one of the important aspects of the industrial management, because incidents due to safety breaches, especially in Industrial technologies (for example, in the oil and gas industries) left catastrophic effects on human and environment [5, 12].

This term in some areas, such as traffic accidents is used as a risk factor (risk factors such as age and gender) affecting the occurrence of adverse event (the crash) [13] that usually has drawn little attention [14]. McNeil believes that the word “risk” means uncertainty, because

the occurrence of major crises such as hurricanes, global economic crisis, earthquakes, floods and multiple fires, are partly associated with conditions of uncertainty, in a way that humans cannot fully predict the time of their occurrences [5]. The important challenge in the field of health is the different perception of this term in the industrial sciences and health fields in the events and disasters. Sometimes words like danger and hazards are used differently [6, 7]. Therefore, risk definition seems simple and understandable, but in reality it has its own complexity. Although accepting danger is due to the nature of the job and social responsibilities, such as fire extinguisher, police, rescue teams; outweighing benefits over losses, or seemingly slight danger, but one of the most important reasons of accepting danger and risk is the lack of sufficient awareness [8, 9].

All risk concepts have a prerequisite which is the contingency of human actions. People, organizations, and society have a variety of options to conduct their activities. Each choice of action has positive and negative consequences. Analyzing risks can help people choose options that their advantages outweighs disadvantages [10].

Hyogo framework for action (2005) has introduced knowledge and education one of the five components needed to reduce the dangers of disasters and consolidate the resilience of societies [11]. Education and promoting the awareness and understanding of the communities is so important that it has been considered one of the domains of Sendai framework [12]. However, the level of danger knowledge (level of awareness) depends to a large extent to the quantity and quality of available information as well as people’s different perceptions of the danger. Danger perception is the important and decisive component of people’s behaviors in time of dangers. Public awareness of disasters and disasters knowledge has direct influence on people’s attitudes and behaviors [10].

Based on what was discussed, having a common language and perception of danger is necessary. As the prerequisite for proper understanding of danger is sufficient education and training, the need for education is completely felt [13]. That is why policy makers and individuals interested in the field of traffic safety always support training plans, general information, and campaigns that can change the attitude of road users, because change in attitude is considered a prerequisite to promote safety precautions against traffic injuries, and the relationship between the change of attitude and events has been already documented [14].

In sum, the term "risk" has different meanings in the fields of industrial sciences, public health, and health in disasters and accidents, so it is necessary to create a common language in this regard, as a common understanding of a term, subject, object, or situation could significantly influence in creating a common attitude, and as a result similar behavior. It can be said the consensus over the application of the words; danger, hazard, and risk must be reached and be educated at all ages and levels.

Meysam Safi Keykaleh¹, Davoud Khorasani Zavareh¹, Hamid Safarpour¹, Reza Gholamnia^{2*}

1. Department of Health in Disasters and Emergencies, School of Health Safety and Environment, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

2. Department of Health Sciences, School of Health Safety and Environment, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

*** Corresponding Author:**

Reza Gholamnia, PhD

Address: Department of Health Sciences, School of Health Safety and Environment, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

E-mail: gholamnia@sbm.ac.ir

References

- [1] Peduzzi P, Dao H, Herold C, Mouton F. Assessing global exposure and vulnerability towards natural hazards: The disaster risk index. *Natural Hazards and Earth System Science*. 2009; 9(4):1149–59. doi: 10.5194/nhess-9-1149-2009
- [2] Brown ID, Groeger JA. Risk perception and decision taking during the transition between novice and experienced driver status. *Ergonomics*. 1988; 31(4):585–97. doi: 10.1080/00140138808966701
- [3] Fraser Mackenzie P, Sung MC, Johnson JEV. Toward an understanding of the influence of cultural background and domain experience on the effects of risk-pricing formats on risk perception. *Risk Analysis*. 2014; 34(10):1846–69. doi: 10.1111/risa.12210
- [4] Weber EU, Hsee C. Cross-cultural differences in risk perception, but cross-cultural similarities in attitudes towards perceived risk. *Management Science*. 1998; 44(9):1205–17. doi: 10.1287/mnsc.44.9.1205
- [5] Sghaier W, Hergon E, Desroches A. Gestion globale des risques. *Transfusion Clinique et Biologique*. 2015; 22(3):158–67. doi: 10.1016/j.tracli.2015.05.007
- [6] Zipkin DA, Umscheid CA, Keating NL, Allen E, Aung K, Beyth R, et al. Evidence-based risk communication. *Annals of Internal Medicine*. 2014; 161(4):270. doi: 10.7326/m14-0295
- [7] Wachinger G, Renn O, Begg C, Kuhlicke C. The risk perception paradox-implications for governance and communication of natural hazards. *Risk Analysis*. 2012; 33(6):1049–65. doi: 10.1111/j.1539-6924.2012.01942.x
- [8] Rausand M. Some basic risk concepts. Oslo: Norwegian University; 2005.
- [9] November V, Leanza Y. Risk and information: For a new conceptual framework. *Risk, Disaster and Crisis Reduction*. 2014; 1–35. doi: 10.1007/978-3-319-08542-5_1
- [10] Renn O. Concepts of risk: An interdisciplinary review part 1: Disciplinary risk concepts. *GAIA - Ecological Perspectives for Science and Society*. 2008; 17(1):50–66. doi: 10.14512/gaia.17.1.13
- [11] ISDR U. Hyogo framework for action 2005-2015: Building the resilience of nations and communities to disasters. Extract from the final report of the World Conference on Disaster Reduction (A/CONF. 206/6). 18-22 January 2005, Kobe, Hyogo, Japan.
- [12] United Nations Office for Disaster Risk Reduction (UNISDR). Sendai framework for disaster risk reduction 2015-2030. Geneva: United Nations Office for Disaster Risk Reduction (UNISDR).
- [13] Amundrud Ø, Aven T. On how to understand and acknowledge risk. *Reliability Engineering & System Safety*. 2015; 142:42–7. doi: 10.1016/j.ress.2015.04.021
- [14] Assum T. Attitudes and road accident risk. *Accident Analysis & Prevention*. 1997; 29(2):153–9. doi: 10.1016/s0001-4575(96)00071-1