Building Effective Risk Communication and Crisis Communication Programs by Implementing the Theory of Constraints Model

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The aim of this paper is to propose a method for Risk and Crisis Communication (RCCC), and to formulate ways of applying it in order to obtain a better general response on the part of the authorities and the public during a disaster. The implementation of the Theory of Constraints (TOC) model is well known in the business management arena. The TOC is said to be "portable" over a wide range of problems that previously were intractable. The importance the bottlenecks in the disaster management process was underlined in this model. This process has two different bottlenecks. The bottleneck at the preparedness phase is a result of the public's lack of attentiveness, and during the disaster, it is the ability to produce and deliver the information to the public. Being aware of the constraints (bottlenecks) in the process allows researchers to minimize or even solve the problem using existing tools. Implementing the TOC model in RCCC has a major contribution in reducing the number of losses of human life, disability and property.

Keywords: communication; crisis communication; risk communication; Theory of Constraints
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Improving Risk Communication for Radiological/Nuclear Threats: Recent Research and New Initiatives

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Reducing morbidity and mortality during a radiological/nuclear terrorism event depends heavily on effective crisis and emergency risk communication. Thus, preparedness and response agencies, policymakers, researchers, and others are devoting increasing attention to communication and information issues. Recent research and new initiatives related to radiological/nuclear risk communication will be discussed. Studies involving clinicians, health department personnel, first responders, and the general public are considered, as are key governmental and non-governmental initiatives. Future challenges in improving risk communication for radiological/nuclear terrorism events will be discussed.

Keywords: communication; improvement; initiative; nuclear; radiological; risk communication; terrorism
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Safety Function Action: International Applications of a Disaster Health Framework for Citizens and Disaster Responders

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Introduction: *Safety Function Action (SFA)* is a disaster health training program for a broad spectrum of disaster responders and the general public. Disaster health is defined as maximal safety, optimal function, and effective action in response to emergencies, disasters, humanitarian crises, and extreme events. The *SFA* integrates precepts from public health, public safety, disaster behavioral health, and medical preparedness.

With *SFA*, a single, six-strategy framework is flexibly applied to support disaster responders and disaster survivors. To achieve maximal safety, strategies are safeguard and sustain. To achieve optimal function, strategies are comfort and connect. To achieve effective action, strategies are advise and activate.

Methods: The *SFA* has been trained extensively in Florida and throughout the US and Canada. In 2009, 861 Florida responders were trained as "facilitators," tasked with bringing *SFA* from the classroom to their respective work teams. Facilitators were supported by a team of DEEP Center-based "coaches." Miami-Dade Schools crisis counselors, trained as SFA facilitators, have responded to school slayings and the H1N1 influenza pandemic during Fall 2009. Multi-day training of *SFA* "trainers" was conducted in Vancouver, Canada; trainers now are imparting *SFA* to "psychosocial" teams preparing for service in the 2010 Winter Olympics. During fall 2009, *SFA* is being trained to multi-disciplinary responder audiences in Halifax and Toronto, Canada. The *SFA* training in Spanish will be conducted in Armenia, Colombia (site of a massive 1999 earthquake). Colombia's Ministry of Health plans twin applications of *SFA*: natural disaster responders/survivors and internally displaced populations.

The *SFA* is being extended to general public applications and is now accessible online. The SFA Family Disaster Plan is being disseminated to responders and citizens.

Conclusions: The *SFA* provides a widely applicable framework for promoting disaster health among responders and citizens, combining psychosocial components with health and safety.

Keywords: disaster; health; psychosocial; safety; Safety Function Action; training
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Risk Communication

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Conflicts such as the Gulf War (1991), the Second Lebanon War (2006), the last operation in Gaza (2009), and the worldwide terrorist attacks have created a challenging situation for the Home Front Command given that the battlefield has shifted to the civilian population. The civil-