ABSTRACT

Although there is current research describing technology efforts utilized in the 21st century as it relates to emergency management, there are adult educational factors to examine regarding Information Communication Technology (ICT) and the Social Communication Skills (SCS) of emergency personnel. Technology is quickly evolving and the population is becoming increasingly more diverse, driving the efforts of emergency personnel to harness more technological emergency advances and navigate the culture of each community to assure effective emergency measures are taken. Within the ICT and SCS framework, emergency management must concern itself with: (a) the basic tenets of emergency management; (b) the changing and new nature of global threats in the 21st century; (c) evolving emergency management technologies; (d) social considerations when interfacing with the communities served; and (e) recommendations for those who are involved in emergency management mitigation, preparation, response, and recovery emergency efforts. All of these factors revolve around the education and re-education of adults; therefore, the focus of this chapter explores subsequent educational implications for the emergency personnel workforce as well as positive results for affected communities. This chapter proposes a larger implication, one of emergency personnel professional development within technology-based response systems as well as the cultivation of social communication in an effort to build a Sense of Community (SOC) with the diverse citizenry they serve. Emergency first responders, as well as other emergency personnel, must be educated in technology and social skills to better serve the community and to become a part of a holistic community. It is in this way that safety, and ultimately social justice, efforts for specific groups who may be marginalized and disenfranchised during an emergency are enhanced.
INTRODUCTION

Communities face many exigencies and effective emergency management is essential to assisting those in need. The incident of 9/11 exposed many emergency preparedness gaps, including a lack of integrated response measures. According to the 9/11 Commission Report (as cited in Khan, 2011, p. 953), “Response efforts did not have the integrated communications and unified command needed for a large-scale response, and information crucial for decision making was not shared among agencies.” In addition, “…first responders were poorly trained and equipment for their roles was inadequate…” (Khan, 2011, p. 953). Several other problems were uncovered, including but not limited to: communication and coordination of efforts of emergency response teams, the fact that emergency support systems were in the Towers at the time of the attack, a lack of adequate media and emergency management communication to the public, the accuracy of public information, and the censorship of public information (Fu, 2011). Therefore, due to this lack of preparedness during 9/11, emergency management is still in the process of adjustment. Since this time, the United States has established national security structures that attempt to ameliorate potential threats, pre, during, and post occurrence.

In terms of emergency health preparedness, Congress has also created more of a funding mechanism for a safety infrastructure that concentrates efforts on local and rural communities as well as more densely populated urban environments (Khan, 2011). Health departments are also being considered as a part of the first responder system, and funding of the Center for Disease Control (CDC) has also aided national, state, local, and Web-based emergency networks (Khan, 2011).

Even though training in technology is an integral part of emergency management, training emergency professionals in social skills and community communications is also a requirement of emergency management and cannot be overlooked. This social interaction is imperative in order to coalesce, especially with a diverse community, so information can flow accurately and effectively to those in need. It is both Information Communication Technology (ICT) and Social Communication Skills (SCS) that can help to eliminate the barriers in emergency situations. It is first responders, specifically firefighters and police, who must be prepared through professional development to enhance best practices in order to optimize communities before, during, and after a crisis.

Therefore, this chapter will begin with an overview of the basics of emergency management and the natures of emergencies in the 21st century. The thrust of the chapter with concern itself with the framework of ICT and SCS, and conclude with recommendations for those who are involved in the mitigation, preparation, response, and recovery emergency efforts. A broader implication will also be developed in terms how emergency personnel can build a holistic Sense of Community (SOC), creating the ultimate construct of social justice.

BACKGROUND

The Basic Tenents of Emergency Management

In order to understand the emergency management frameworks of ICT and SCS, the basics tenents of emergency management must be explored. Emergency personnel should understand that emergency management is staged or considered to be in four phases: mitigation, preparation, response, and recovery within a crisis situation (Lindel, Prater, & Perry, 2007). In addition, rail system fire hazards are defined in slightly different ways in terms of: Threat, Vulnerability, Consequences, and Risk Assessment (TVCRA) (Meacham, Dembsey, Schebel, Johann, & Tubbs, 2012). In order to try and quantify risk assessment, risk matrices have also been designed to try and quantify the probability and magnitude of an emergency situation.
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