Exercise Winter Blues!

Executive Summary

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http://simtec.jibc.ca

Introduction

Exercise Winter Blues! is the first of five planned exercises that will be conducted over a four year period to study the psychosocial factors involved in the decisions and actions performed during a disaster by responders over a number of scenarios. Psychosocial refers to the interaction between one's mind and body; in practical terms, the term refers to one's physical, psychological and social functioning.

The Simulation Training and Exercise and Collaboratory (SIMTEC) is a significant research project undertaken through the Office of Applied Research and the Emergency Management Division at the Justice Institute of BC (JIBC), Canada; funding support for this project is provided from project partners including the Canadian Safety and Security Program, Centre for Security Science, Defence Research and Development Canada; Employee Assistance Services, Specialized Health Services Directorate RAPB/BRP Health Canada (EAS-HC); JIBC; and Royal Roads University.

Three primary research questions guide the SIMTEC project:

1. What resources and training do Emergency Operations Centre (EOC) personnel need to respond more effectively to the psychosocial consequences of disasters?
2. What resources and training would assist first responders, family physicians and other psychosocial practitioners to respond to the psychosocial consequences of disasters?
3. How can the knowledge and resources developed through this research most effectively be made available to EOC personnel, first responders, psychosocial practitioners, researchers and community members around the world?

SIMTEC is a “collaboratory”, or virtual laboratory of information, research, and expert dialogue focused on providing training and exercises for emergency responders in Emergency Operations Centres (EOC) and other senior decision makers with a specific emphasis on the psychosocial implications. This collaboratory includes a digital library of exercises, injects, scenarios, simulated news footage, and exercise manuals which serve as a central repository and evolving compendium of resources for training and research available on the internet, free of charge to any jurisdiction with access to high- speed internet. The protocols and guidelines will be of interest and applicable to any country.

Exercise Winter Blues

Exercise Winter Blues! is designed as a three hour functional tabletop exercise that provides players with an opportunity to test their current plans and processes to deal with various severe winter weather conditions. It is aimed at operational and strategic level senior decision

makers in community-based EOC. In addition, the exercise is focused on the ability of EOC personnel to manage their own stress reactions, reduce the stressors on front-line staff and to provide timely psychosocial support for responders and community members impacted by the disaster scenario.

The exercise scenario focuses on a severe winter storm impacting the fictitious city of Denton. At the start of the exercise, Players are informed they are now employees of the City of Denton, representing whichever agency they work for in the "real world." For example, a "real" police officer would be acting in the role of a Denton police officer. As the exercise begins, Players receive notification that the Denton EOC is activating in anticipation of providing support to first responders. As the exercise unfolds, Players are confronted with a number of situations that they must decide how to deal with, e.g., power outages in part of the city, rerouting traffic due to a major traffic incident. In each case, Players rely on their training, experience, and existing response plans to decide the most appropriate course of action.

Exercise development began in the fall of 2011 following an inaugural Expert Working Group (EWG) meeting in October, 2011. Based on the feedback from this meeting the Exercise Development Team (EDT), led by Darren Blackburn from the Emergency Management Division of JIBC, developed a pilot exercise which ran on the morning of February 10, 2012. The pilot exercise was designed to allow the research team to see how exercise participants would respond to and/or deal with key stressors that response personnel typically encounter in an emergency.

A literature review identified likely stressors that were applicable at the site and EOC levels, as well as some generic response-based stressors. These were incorporated at key intervals in the exercise and targeted across the various organizations represented in the EOC (i.e., police, fire). To assist responders, attention was given to classifying each exercise inject as either "information only" or a critical "decision-making" input. For the latter, details of what the research team was looking for in responses was identified as expected actions known only to the controllers. This allowed the research team to capture relevant data for analysis relating to how decisions were made in an EOC.

Three local BC communities participated in the pilot exercise in February 10 2012: New Westminster, Vancouver, and the North Shore (which includes the District of West Vancouver, District of North Vancouver and City of North Vancouver). On the afternoon of February 12, 2012, focus groups were conducted with each participating community's EOC Players. SIMTEC researchers analysed findings of the resulting audio and visual exercise transcripts. As a result, amendments were made prior to running the next exercise on March 9, 2012. Four communities participated in the March 2012 test exercise: Coquitlam, Chilliwack, and

Vancouver and Vancouver North Shore; players in the October exercise did not participate in the March exercise.

Following the exercise, focus groups were run with two communities and individual interviews were conducted with members of the other two communities. Exercise transcripts from each EOC were also coded and analyzed. Further refinements to the exercise were then made and a training program was developed based on an analysis of actual versus desired behavior in response to exercise injects.

A final exercise was run on October 29, 2012 with the communities of Vancouver, Delta, Maple Ridge and the North Shore participating. Prior to engaging in the exercise, participants were shown a SIMTEC training video that was developed based on the analysis of the first two exercises. The SIMTEC research team sought to observe whether or not behavior in EOC personnel and/or how decisions were made had changed as a result of the training program. Following the exercise, focus groups were conducted with the exercise participants and transcripts for each responding pods were once again coded and analyzed.

Findings

The analyses of Winter Blues! can be divided into two broad categories, Decision Making and Training Themes

Analysis of the first two exercises identified five critical areas for improving EOC personnel's performance as it relates to psychosocial and strategic considerations:

1. Female participants were routinely assigned clerical and recorder roles, or their articulated contributions ignored altogether, despite their operational roles. As well differences were noted between uniformed and non-uniformed members in the EOC, with uniformed members not always giving due consideration to quieter members and some of the non-uniformed members of the EOC - for example the Emergency Social Services (ESS) Director)>

2. The deployment of ESS was always suspended until the emergency was under control and close to demobilisation stage, delaying social and psychosocial support services for civilian populations

3. Responders failed to properly acknowledge the death of a fellow responder and expressed regret that they had not supported the EOC member from the corresponding agency

4. Players agreed that they gave little consideration to psychosocial support for on-site first responders

5. Breaks, a key-coping strategy and critical indicator of self-care, were not implemented in the EOC.

Training Themes

A training video focusing on key psychosocial interventions was developed and delivered to participants prior to running the third exercise. It focused on:

1. Taking breaks in the EOC for self-care;
2. Gender and diversity issues in the EOC and the potential of everyone to contribute to and influence action plans;
3. Supporting EOC personnel following news of serious injury or death of first responders or civilians;
4. Proactive deployment of ESS and Disaster Psychosocial Services (DPS) volunteers;
5. Ensuring the EOC provides psychosocial support to first responders on-site; and
6. The importance of a Team Support Worker from DPS embedded in the EOC to support worker care actions.

The training proved to be effective, to some extent, as performance in psychosocial interventions did improve in the final exercise. Behaviour of EOC personnel related to the key themes initially changed for the better but the change was not sustained throughout the entire exercise. Participants started taking breaks early on in the exercise. However, as stress increased it appeared to block participants' ability to draw on newly acquired skills or information and they ceased to take breaks. Interestingly, the introduction of a buddy system for EOC personnel remained effective throughout the entire exercise and proved to be one of the most effective psychosocial interventions. The inability of EOC participants to maintain the necessary degree of worker care pointed to the need to have an embedded Team Support Worker to ensure that EOC members took advantage of the psychosocial protocols available to them. However, rapid deployment of ESS and DPS was observed.

Decision Making

Two independent methodologies were employed to assess decision making in each of the EOC pods during the pilot and test exercises; Gladwin's Ethnographic Decision Tree Model (EDTM) and Klein's Recognition-Primed Decision Model (RPDM). EDMT assumes decision making is a conscious process and seeks to define decision-making criteria through interviews with decision makers which are validated through observations of those decisions being made in real-life situations. RPDM, on the other hand, considers decisions made by individuals with high levels of experience in a given area to be intuitive with no obvious reason for selecting one alternative over another.

For decisions made in the EOC pods, it was expected that RPDM would be the most applicable model. Expectations were that EDTM would be more valid for decisions that are not typical of an EOC, such as those around psychosocial concerns. Interviews following **Exercise Winter Blues!** revealed that when making decisions, participants "just knew what needed to be done" and they were unable to explain why certain decisions were made. Observations of the exercise supported this as most decisions appeared to be made quickly and without deliberation. In the cases where deliberation was observed it appeared there were no clear rules or a common understanding of the topic. Deliberation often took place when making ESS-based or psychosocially based decisions resulting in delayed or deferred decision making.

In January 2013, Exercise Winter Blues!, including the Controller Guidebook; resources and materials for the Controllers and Players in the EOC; and the training video were made available on the SIMTEC website http://simtec.jibc.ca

The findings from **Winter Blues**! were instrumental in guiding SIMTEC's second phase, **Exercise Green Cloud**, as successful concepts, such as the buddy system and use of DPS workers, were carried over to assess their effectiveness with community members and first responders impacted in a terrorist-based hazardous material disaster.