Clinical Medicine

Abstract ID: 107

Systems-Theoretic Accident Model Process (STAMP) analysis on emergency medical response service during Genting Highland bus crash

Muhammad Shaqif Syed Jamaludin | Ibrahim Adham Taib

Department of Biomedical Science, Kulliyyah of Allied Health Sciences, International Islamic University Malaysia

Introduction: Ineffective communication, errant traffic and crowd control are the challenges faced by the emergency response and rescue service in assisting victims of Genting Highlands Bus Crash occurred on 21st August 2013 to provide pre-hospital stabilization before transferring to the nearest hospital for further medical treatment. This study aims to improve the emergency response and rescue service by analyzing the external disturbances as well as the dysfunctional component interaction of the safety control structure for emergency response and rescue service. Methods: Based on a report produced by an independent advisory panel on the Genting Crash, an in depth analysis using Systems Theoretic Accident Model Process (STAMP) was used to solve this issue, according to the system thinking by analyzing the inadequate enforcement or control of the safety-related constraints on the design, development and operational component of the emergency response and the rescue service system. Results: The result demonstrates that the challenges face by the emergency response and rescue service are the gap difficulties in the control structure, constraint and roles, responsibilities of the human controller and the system level hazard in the safety control structure of the emergency response and rescue service. Conclusions: The findings in this study help in assisting policy makers and professionals in strategy development, understanding the dynamics of emergency response and rescue following road traffic accidents thus modifying the organizational structure and planning to prevent similar occurrence of difficulties face by the team during emergency cases which are necessary to prioritize protection and safety of human life.

KEYWORDS: emergency response and rescue, systems-theoretic accident model process, STAMP, bus crash, human factors