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Title

**Design and validation of pre-hospital emergency preparedness evaluation tool for
terrorist attacks for Iran**

By

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Abstract

Introduction and Objectives: Many disasters occur in the world every year. It is one of the types of man-made terrorist attacks. Our country, Iran, has been exposed to various terrorist attacks due to its special position and location in the Middle East. The pre-hospital emergency, as one of the most important organs and organizations in such incidents that has a very important role in such incidents, but considering that it is currently a suitable tool. In order to measure the performance and readiness of pre-hospital emergency teams in terrorist attacks, we conducted our study with the aim of designing and validating tools for evaluate the readiness of pre-hospital emergency systems in terrorist attacks for Iran.

Methods: The present study is a mix method (qualitative and quantitative) study that was conducted in three stages. In the first stage, a systematic review was conducted, then in the second stage, which was a qualitative study, first 34 experts and staff in the field of pre-hospital emergency were interviewed, and then the concept of pre-hospital emergency preparedness evaluation was explained and developed. Then, using the results of systematic review and qualitative stage, the initial items of pre-hospital emergency preparedness assessment tool in terrorist attacks were designed. In line with the objectives of the quantitative part of the study, tool validation was performed. For this purpose, different stages of face validity, content, construct validity and reliability were performed.

Results: The results of the systematic review, after searching the relevant databases, found 794 related papers, which finally selected 8 studies, of which 4 were qualitative studies and 4 were quantitative studies. By performing the qualitative stage of the research, explaining the concept of pre-hospital emergency preparedness evaluation, 325 primary codes were extracted in 7 main categories and 16 sub-categories. Thus, based on the qualitative findings of the study, the researcher designed tool items. Then, in line with the objectives of the quantitative study section, the accreditation tool for pre-hospital emergency preparedness in terrorist attacks was validated. Thus, face validity, content validity (0.97), and finally the tool with 110 items, 7 main categories, and 16 sub-categories was designed. Also the tool was included determination of face validity, content validity, structural validity and reliability.

Discussion and Conclusion: Terrorist attacks are on the increase around the world, and important organizations such as pre-hospital emergencies need to prepare for these incidents and measure their readiness periodically. The vacuum created by the existence of a standard and comprehensive tool for assessing pre-hospital emergency preparedness in terrorist attacks is one of the main problems to accurate and scientific evaluation of this readiness. The studies carried out in the initial design of this tool showed that, unfortunately, most of the accident and medical emergency management centers in the country are not reasonably prepared to manage and respond to terrorist attacks and must improve their level of preparedness for this.

Keywords: Disasters, Preparedness, Emergency Medical Services (EMS), Terrorist Attacks, Tools