

## **Trend of Research on Health in Disasters in Iran: A Survey on Recent Congresses**

Ali, Ardalan<sup>1</sup>. Amir, Salari<sup>2</sup>. Javad, Babaie<sup>3</sup>

**Introduction:** As the articles presented in “The International Congress on Health, Treatment, and Crisis Management in Disasters and Emergencies” were mostly done by researchers from Iran, this can be a good indicator of development in research on health in disasters. This article explores the trend of research on health in disasters in recent five congresses in Iran.

**Methods:** Based on the abstract book of the last five congresses, the variables investigated were: number of articles classified based on the type of presentation (lectures or posters), type of article (research or non-research) and methodology of the study. To determine the methodology, the author's assertion in the article, if mentioned, was taken into account. In other cases, the corresponding author was contacted.

**Results:** Over the last five congresses, a total of 1866 articles had been presented, from which 343 (18.4%) were presented as lectures and 1523 (81.6%) as posters. 356 (19.1%) of were research articles and 1510 (80.9%). The trend shows an overall increase (18.5%) from 2003 to 2012, but it was only 3.1% from 2007 to 2012 that is not considerable.

**Conclusions:** The trend of research articles presented in the last five congresses, as a key indicator of development in disaster research, has seen a rise. To accelerate the process, we need to (a) promote research and methodology workshops with a disaster orientation, (b) develop educational programs to train researchers, and (c) fund disaster management and risk reduction research in Iran.

**Key words:** Disaster. Emergency. Health in disasters and emergencies. Research. Iran

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1 -School of Public Health-Tehran university of medical science- Pour Sina AVE. Tehran, aardalan@gmail.com,

2 -School of Public Health-Tehran university of medical science- Pour Sina AVE. Tehran, salaramir@gmail.com,

3 -School of Public Health-Tehran university of medical science- Pour Sina AVE. Tehran, Javad1403@yahoo.com

## **Introduction**

Islamic Republic of Iran is exposed to various natural and man-caused disasters. According to the UN's report (2009), during the last four decades, Iran has run the risk of 8 out of 10 deaths caused by natural disasters (1), and there is a growing trend of natural disasters, especially climatic disasters, damaging health care facilities (2,3). Moreover, Iran had the highest influx of refugees from neighboring countries during a decade. The eight-year imposed war on Iran and the incessant and full-scale threats of foreign enemies are also obvious examples of dangers caused by men.

Thus far, the most important lessons learned for health management in disaster time have been extending research programs, and creating forums by directors, experts, and scholars. A comprehensive and cost-efficient management require research-based evidence provided by scientific methodologies, when management and local characteristics of Iran have been considered.

Basij medical community embarked on a praise-worthy task by holding a series of congresses entitled "The International Congress on Health, Treatment, and Crisis Management in Disasters and Emergencies," from 2003, the fifth of which was held in 2011. The congresses have provided an opportunity for related directors, experts, professors, and scholars to convene from all parts of Iran. Therefore, the outcomes of these congresses can be one of the indicators for the promotion of health in disasters. Therefore, the aim of this brief article is to review the articles submitted to the five congresses, by emphasizing research articles (in which data was collected, analyzed and reported according to a defined methodology).

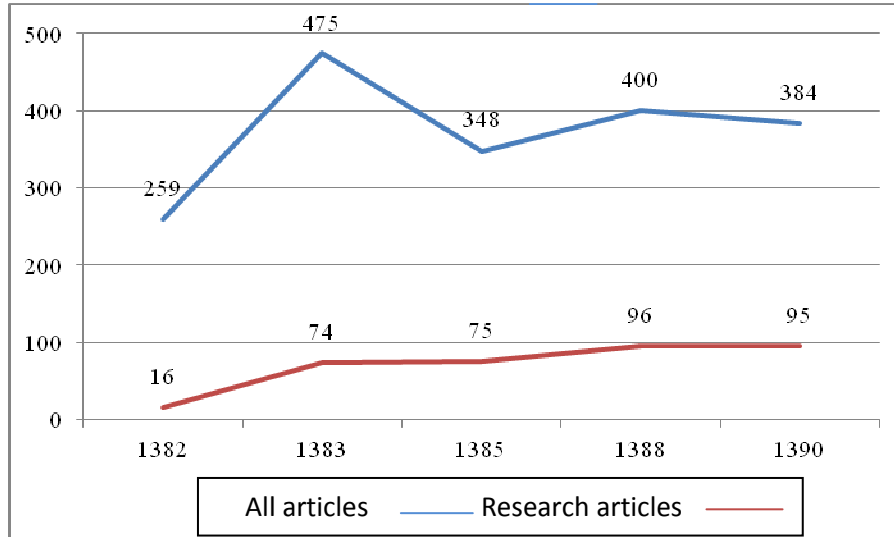
## **Methods**

Data was collected by reviewing the Book of the Abstracts of the five ICHTCMDEs. The variables were the number of submitted articles divided according to presentation mode (speech or poster) and their types (research or non-research). The comprehensive speeches were not included in this review. For determining the study method of research articles, we trusted what the author had mentioned in the article. In cases where it was not stated, we discussed the matter in a meeting with the authors of the articles.

## **Results**

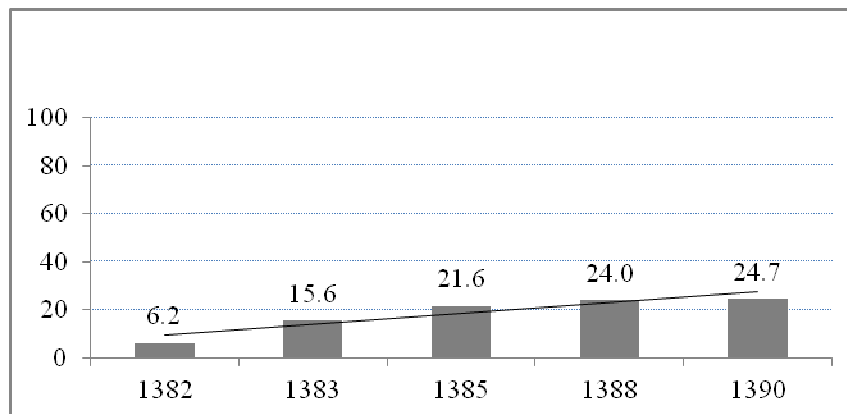
Over the five congresses, a total of 1866 articles were submitted, of which 343 (18.8%) were presented as lectures and 1523 (81.6%) as posters. The number of research and non-research articles were 356 (19.1%) and 1510 (80.9%). *Figure 1* compares the total number of articles and research

articles in the five congresses. *Figure 2* illustrates the growing trend of research articles in percentage, which had an overall rise of 18.5%, but from 2007 to 2011 this growth has slowed down to 3.1%.



**Figure 1: The total number of articles and research articles submitted to the ICHTCMDE**

The distribution of methodology of research articles in the five congresses is as follows: 183 cross-sectional studies (51.4%), 82 descriptive-analytic studies (23%), 33 semi-empirical studies (9.3%), 17 qualitative studies (4.8%), 17 case reports (4.8%), 12 comparative studies (3.4%), 3 clinical trials (0.8%), 2 correlation studies (0.6%), 2 case-control studies (0.6%), 2 cohorts (0.6%), and 3 others (0.8%).



**Figure 2: the growing trend of research articles submitted to the ICHTCMDE**

## Discussion

The current review demonstrates that in spite of the growing trend of research articles submissions over the past years, their overall number have been low, compelling the congress to accept translated and review articles. This conclusion is drawn by presupposing that the scientific committee of the congress prioritized the acceptance of research articles.

Although analyzing the quality of the research articles has been not the focus of our review, a brief survey of The Book of Abstracts indicates the necessity of extending the education of research methodology as one of the requirements for the development of the field. This congress was opted for as the subject of our study because many professors, scholars, directors, and experts have participated in the congress from all over Iran. Accordingly, we can safely assume that the majority, if not all, of the related studies carried out so far in Iran have been submitted to and presented at the congress<sup>1</sup>.

As with other health and social challenges, in order to minimize the effects of disasters we need to conduct researches guided by defined methodology, the results of which can provide the foundation for future decisions (4). Policy makers and government agents responsible for formulating policies, plans, and interventions need information based on rigorous research (5). Only based on scientific research can make preventive plans to reduce destruction (6,7). Using evidence gathered from disasters can lead to harm reduction, adequate preparation, and better and more efficient responses on a local, national and international scale, saving lives of human beings (4). Without conducting systematic researches, the fundamental knowledge cannot be produced, and as a consequence progress and development cannot be attained (8).

Although disasters have been occurring in nature from the very dawn of life on the Earth, academic and scientific researches concerning disasters was not started until 1917 and epidemiologic methods in studying disasters have been used in 1970 (7). In the wake of such catastrophic disasters as hurricane Katrina, September 11, Japan tsunami of 2004, and the Iraq war, new opportunities for research and knowledge production have been created. Although conducting studies in this field face many problems, their process is accelerating (9,10,5). A study entitled *An Analysis on the Trend of Published Scientific Articles in ISI Journals before and after September 11, 2001* shows that the number of published articles over the five years after September 11 has increased considerably compared to the five years

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<sup>1</sup> The present authors are also conducting another review to depict a picture of the papers by Iranian scholars published in internationally-indexed journals.

before the event ( 11). In addition, the scientific database of Pub Med indicates that the number of published articles has increased from 239 in 1967 to 2544 in 2011.

Conducting researches concerning disasters, health effects, and providing health services is different from normal researches (12,8). The main difficulties in this regards are: differences in statistical methods and study designs in disasters (7), the unfamiliarity of researchers with these methods and the conditions of the stricken societies, the risk of injury to researchers, unreadiness or refusal of people to participate in the study, ethical challenges, obtaining informed written consent (8), the destruction of society's infrastructures, inaccessibility to the regions and the consequent loss of data available only after the disaster, terror and shock among people and disorganization in service delivery, overflowing demands for conducting researches or contribution, financial problems and lack of workforce, the insistence on the prompt completion of a study and probably returning to the previous unfinished research projects, not sharing the findings, foreign pressures to access the results and misuse them (12), the disappearance of existing data for different reason like forgetting, removing debris, rescuing and retrieving, the increase of immigration to the ravaged areas, and changes in the population under study, the multidimensional nature of disasters and difficulty in conducting parallel research (13), the need for quick gathering of study results for planning, the problem for scheduling for the study (the time of the event is not known), and the inapplicability of the findings to other countries because of social and cultural differences (7).

### **Conclusion**

Considering the explanations above, promoting education on methodology in disasters, training researchers in this field, and funding and supporting researchers systematically can be recommended to reduce harm reduction in disasters in Iran.

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