

Identification of indicators for the evaluation of health disaster management interventions during the relief phase: scoping review of the peer-reviewed literature



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Introduction:

Disasters have existed for many ages and although they are known to threaten health, there is still lack of evidence regarding the effectiveness of health disaster response interventions. Indicators are primordial for the evaluation of such interventions. The main objective of this study was to map the output, outcome and impact indicators used to evaluate health interventions in disasters and to identify gaps in the existing peer-reviewed literature.

Methods:

A scoping review of the peer-reviewed literature was performed. Scopus, Web of Science and Pubmed were the 3 databases in which the search was launched. All references published in the peer-reviewed literature in English, Dutch or French since 1990 were eligible for inclusion if they met all the inclusion criteria. Characteristics of the studies, the interventions and indicators identified were charted. Interventions were categorized using an extraction template.

Results:

A total of 8329 articles were identified. After removal of duplicates, 5578 unique studies were screened of which 56 met all inclusion criteria. The selected articles contained 86 interventions and 1387 indicators which could be grouped into 619 unique indicators. Of these indicators the majority were output indicators (70,8%). Of the remaining indicators 28,8% were outcome indicators and only 2 (0,3%) were impact indicators. For almost half (47,7%) of the interventions, no outcome or impact indicators were identified. The highest proportions of outcome indicators were found in medical care interventions and overall response interventions.

Conclusion:

This scoping review identified the existence of many indicators, however most of them were output indicators. In order to generate evidence on the effectiveness of interventions, the priority should lie on determining outcome and impact indicators. If health disaster management wants to become a scientific discipline, several steps must be undertaken. First, there is an urgent need for the standardization of definitions and the development of a glossary. Second, the identification of indicators should begin with the determination of interventions needed in disaster response after which systematic scoping reviews should be performed in order to identify the most appropriate indicators. Lastly, data collection should be standardized, and a universally accepted reporting template should be implemented.