

# Managing the Frontlines: Nurse Preparedness and Response

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## ABSTRACT

An integrative literature review was conducted to determine frontline nurses overall preparedness and response to mass casualty incidents. Disasters and mass casualty incidents have risen at alarming rates. Significant gaps exist among nurse preparedness and response to mass casualty incidents. Nurse leaders must strive to bridge the existing gaps through education, training, simulation, collaboration, and support of the frontline team.

## INTRODUCTION

Mass casualty incidents present unique and often unprecedented challenges. Nurses must be adequately prepared and equipped to combat these challenges and to safely, efficiently, and effectively render aid to those affected by these events. Lack of preparedness contributes to a higher prevalence of negative impacts such as harm, trauma, injury, spread of disease, stress, and psychological distress (Said & Chiang, 2020). Mass casualty incidents are characterized by high patient volumes, minimal resources, and they cannot be managed with daily or routine operations (Moran et al., 2020). These events contribute to a high-stress environment that negatively impacts all aspects of the healthcare team as well as patient care. Emergency department nurse leaders must prepare teams for the anticipated strain that results from high patient volumes and minimal resources as this can make teamwork and collaboration, patient stabilization and treatment, and throughput of patients difficult to maintain and manage. Prevention, planning, and risk management are associated with improved patient outcomes, reduced strain on the healthcare environment and its resources, and reduced stress on the healthcare team (Fletcher et al., 2022).

## RESEARCH QUESTIONS

- What systematic approach(s) should be utilized to adequately manage high patient volumes, surge capacity, and available resources in emergency departments during mass casualty incidents?
- How can the implementation of effective triage processes in emergency departments improve patient outcomes and improve patient throughput during mass casualty incidents?
- How do strategic planning and mass casualty incident training, education, and simulation improve nurse readiness and response to these events? What is the role of the nurse leader in this process?
- How does the nurse leader support and promote the self-care of frontline emergency department nurses during mass casualty incidents?

## METHODS

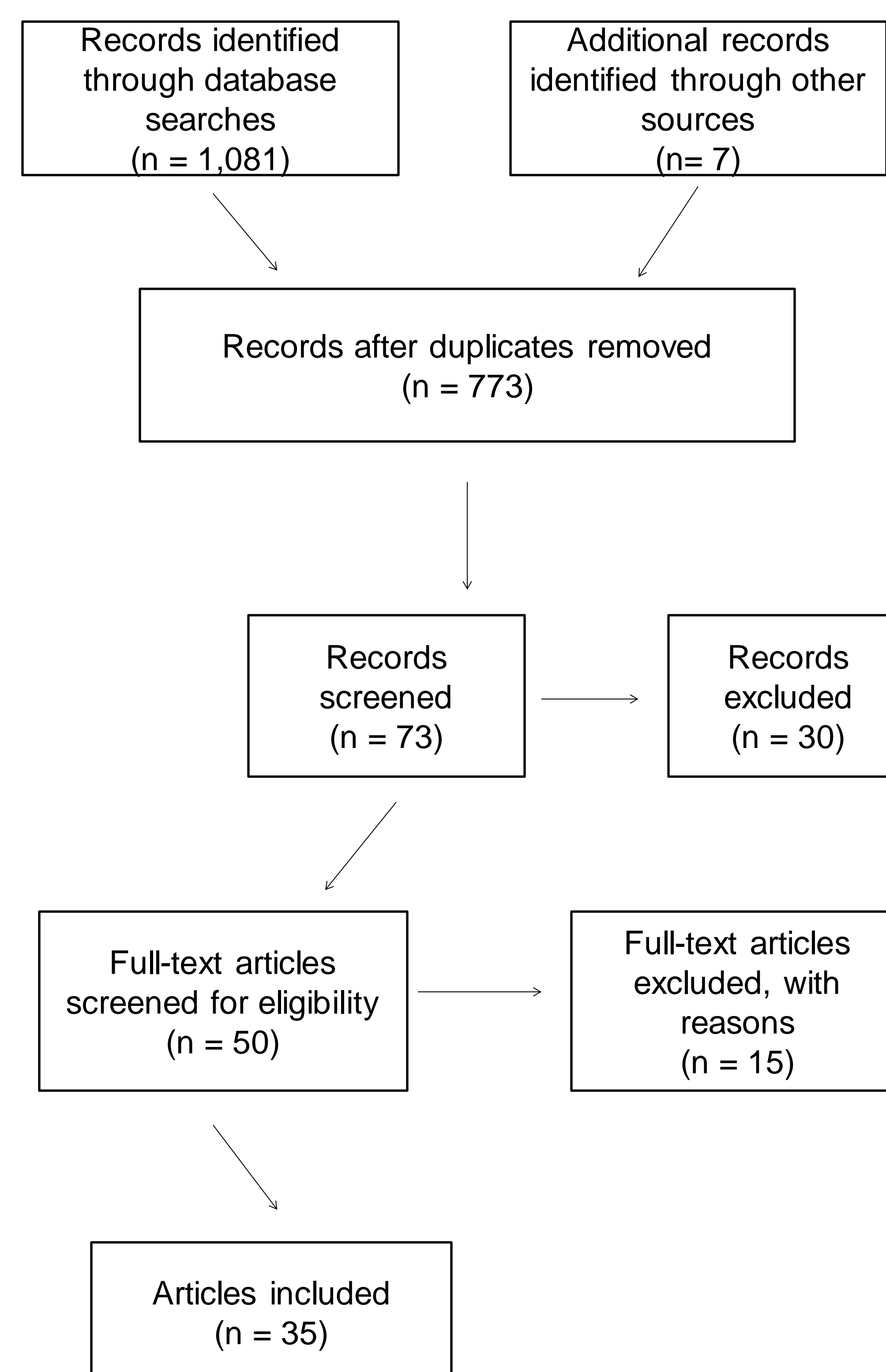
Keyword searches and search phrases were utilized to conduct database searches to gather a majority of relevant data.

**Keywords:** emergency department, mass casualty, triage, and nurses.

**Search Phrases:** ("emergency department\*" OR "emergency room\*") AND disaster\* AND (surge OR triage) AND ("emergency department\*" OR "emergency room\*") AND ("nurs\* leader\*" OR "nurs\* manag\*" OR "nurs\* administrat\*") AND (disaster\* OR flood\* OR hurricane\* OR tornado\* OR "mass casual\*" OR bioterror\* OR "mass shoot\*" OR outbreak OR pandemic OR epidemic OR "public health emergenc\*")

Inclusion and exclusion criteria were developed to further narrow the search. After application of inclusion and exclusion criteria, article titles were screened followed by abstract reviews and full-text reviews. This methodology revealed 35 articles to be included in the review.

## PRISMA Flow Diagram



## PRELIMINARY RESULTS AND ANTICIPATED OUTCOMES

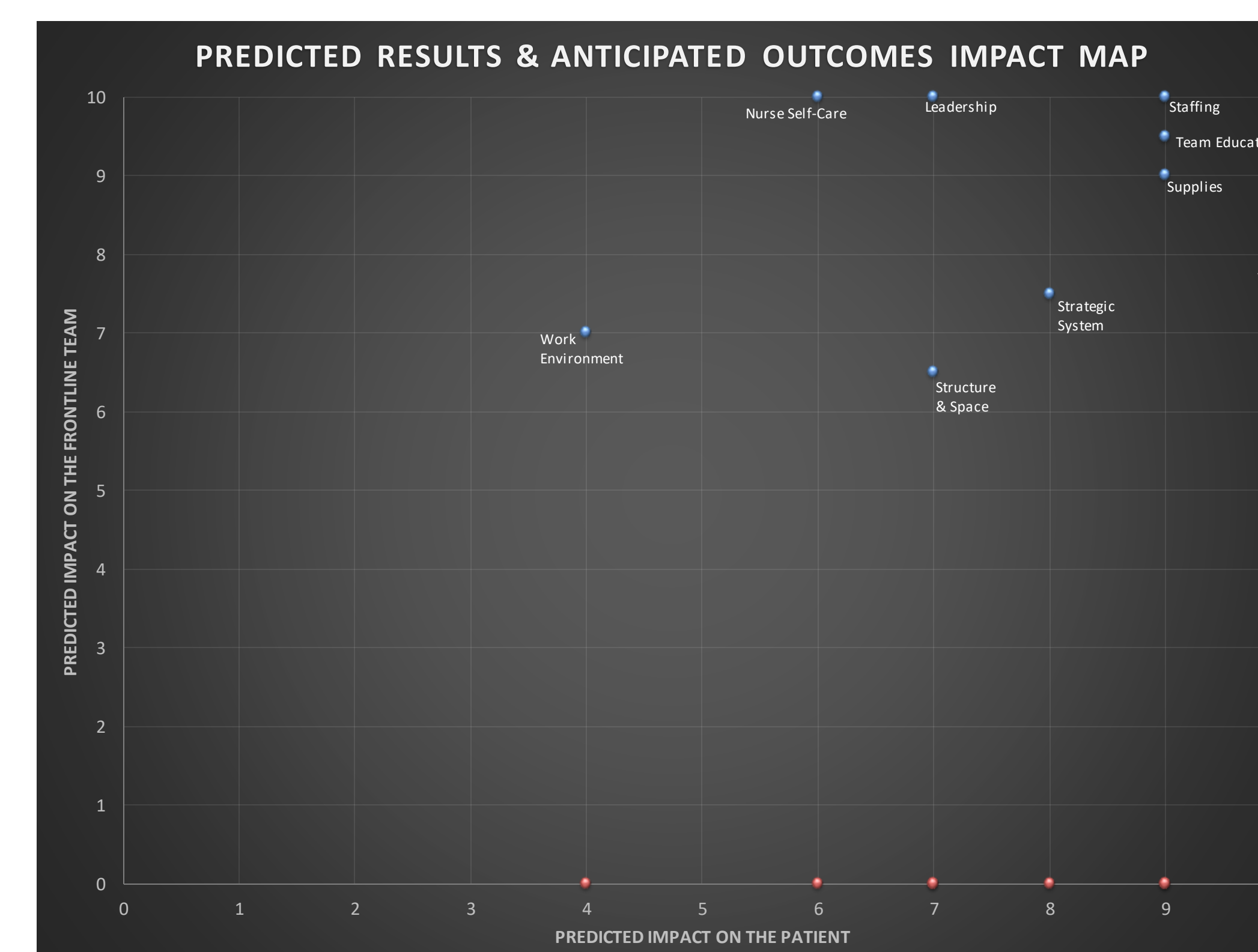
- Adequate staffing, supplies, and space along with a strategic system are necessary to effectively manage high patient volumes, surge capacity, and available resources.
- Accurate, efficient, and effective triage processes are associated with improved patient outcomes, throughput, and resource management and allocation.
- Training, education, drills, and simulation are the most effective methods to improve disaster preparedness and response.
- Experience influences preparedness and response. However, it is not as strongly associated with improved preparedness and response as training and education.
- The emergency department is a high-stress work environment. Emergency department staff are at an increased risk for turnover and burnout. Mass casualty incidents can further contribute to the high incidence of turnover and burnout among emergency department staff.
- Frontline teams impacted by disasters and mass casualty incidents are vulnerable to psychological alterations in health.
- The COVID-19 pandemic has strongly influenced current and future disaster preparedness and response plans.

## PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS

- Nursing leadership teams should use a collaborative approach to strategically and skillfully prepare teams for disasters and mass casualty incidents.
- Disaster plans should focus on training, education, drills, and simulation as these methods are identified as being the most effective tools to improve nurse preparedness and response.
- Nursing leadership teams must be advocates for the frontline team and develop a healthy work environment that supports and promotes self-care as the impacts of disasters and mass casualty incidents can be significant on the health and well-being of the frontline team.
- Nursing leadership teams have a unique opportunity to improve disaster nursing.
- Nurse leaders are key in the development of a resilient frontline team, adequate preparedness and response, and influencers to change.



(Federal Emergency Management Agency, n.d.)



## References

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