

# **Designing and Validating a Disaster Plan For Zagazig University Emergency Hospital**

Thesis submitted for partial fulfillment of the requirements of  
the Doctorate Degree in Nursing Sciences  
(Nursing Administration)

By

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## SUMMARY

A disaster is a situation where people's normal means of support for life with dignity have failed because of natural or human-made catastrophe. It is a calamitous event resulting in loss of life, great human suffering and distress, and large-scale material damage. Disasters may be natural or man-made. Healthcare further classifies them as internal or external according to location. Disaster management includes the development of disaster recovery plans for minimizing the risk of disasters and for handling them, and the implementation of such plans. Hospitals play a critical role in any disaster. Therefore, they need emergency preparedness plans to be ready to meet unpredictable challenges of disasters. Nurses play key leadership and service provision roles in planning and implementing disaster plans.

This study was aimed at designing and validating a disaster plan for Zagazig University Emergency Hospital. It was carried out in this setting using a descriptive cross-sectional design in the assessment phase; then, an internal disaster management plan was designed and validated. The study involved all nursing personnel working in the setting

(153) in addition to one Nursing Director, one Assistant Nursing Director for reference. It also included a jury group of 30 faculty members from the Faculty of Medicine and the Faculty of Nursing with special interest in the area of disaster management for validation. The data collection tools consisted of an interview questionnaire form for nurses' knowledge and awareness, an inventory checklist for observing preparedness, and an opinionnaire sheet for jury group validation. The tools were validated by experts' opinions and pilot-tested. The fieldwork involved assessment, observation, and plan development and validation phases. The researcher developed a nursing disaster preparedness plan using the data obtained from the analysis of the interview questionnaire sheet, the findings of the observation of the various department, in addition to pertinent literature. Once prepared in its preliminary form, it was presented to the jury group for face and content validation.

The work lasted from July 2015 to June 2016.

The main study findings were as follows.

- Nurses' age ranged between 24 and 50 years, with majority of females (96.7%), with diploma degree (73.9%). Their experience years ranged between less than one to 25.0, and 92.8% had no previous training in disaster.

- The jury group consisted mainly of assistant professors (53.3%) from six different universities, mostly Zagazig.
- The highest knowledge areas among nurses were those of training (81.0%) while only 8.5% had satisfactory knowledge of documentation in disasters.
- In total, 36.6% of the nurses had satisfactory knowledge of disasters.
- In total, the highest nurses' awareness was related to preparedness of the general hospital environment (95.4 %), whereas the lowest were related to documentation of internal disaster (3.3%).
- Overall, 20.9% of the nurses in the study sample were having high total awareness of internal disasters preparedness.
- The nurses with a bachelor or higher degree, with experience years less than 20, and in supervisor/head nurse job positions had significantly higher percentages of satisfactory knowledge.
- The nurses with a bachelor or higher degree and in supervisor/ head nurse job positions had significantly higher percentages of high awareness.

- Significantly more nurses with satisfactory total knowledge were having high total awareness, with a statistically significant positive correlation ( $r=0.372$ ).
- By observation, the emergency equipment had the highest availability (83.9%) whereas the least available were sterile linen (18.8%). Most available items were in good working status, accessible, in different sizes, and properly stored.
- Overall, there is 60.3% availability of the needed supplies/equipment for the internal disaster preparedness.
- The majority of the jury group members agreed upon most of the face validity items, with many of them reaching 100.0%.
- There were unanimous agreement of the jury group members upon almost all items of the content validity concerning the internal disaster preparedness plan, with agreements ranging between 90.0% and 100.0%.

In conclusion, the nursing staff in the study settings have deficient knowledge and awareness of the internal disaster plans. The disaster preparedness in the setting is average. Based on this assessment, an internal disaster preparedness

plan was developed and validated by majority agreement of a jury group of nursing and medical experts.