

INTRODUCTION

- In 2018 there were 124 FEMA declared disasters (FEMA, 2018)
- 25% of nurses have never read their facilities disaster plan and 10% do not even know where to find it in the event of the disaster (Labrague et al., 2018)
- 28.3% of nurses would feel comfortable assuming command and only 7% would triage (Oztekin, et al., 2015)
- In a full-scale exercise involving 16 hospitals, it was found that 0% of the hospitals were compliant in all five of the assessed categories (Kilma et al., 2012)
- Simulations allow for an 11% increase in knowledge post a simulated learning event (Schubert, 2012)
- After completing a computer-based surge simulator charge, nurses were able to decrease time to treatment of victims by over 50% (Jonson, Peetersson, Rybing, Nilsson, & Prytz, 2016)

DISCUSSION

- It can be clearly seen that disasters are occurring with a growing frequency
- Hospitals and nursing staff will be on the front lines of these disasters as they tend to the victims and the families
- There is a clear lack of knowledge among nursing staff as how to respond to these situations
- There is also a lack of research on how to correct this deficiencies
- Simulations are widely used in medical education and should be incorporated into disaster response education

ETHICAL CONSIDERATIONS

- Permission for the performance of this study was provided by the study site and the Rutgers IRB ID# PRO 2019000872
- There was minimal risk of harm to the participants when undergoing this study

METHODOLOGY

Design: A quasi-experimental design was used with a pre- and post-intervention survey. Participants were asked to assess their familiarity with the following questions, 1 being not familiar and 5 being very familiar

Sample: 30 emergency department nurses

Setting: A busy Level 1 trauma center in Newark, NJ

Measures/Analysis: Wilcoxon Signed-Ranks Test

ARE YOU READY FOR THE NEXT BIG ONE?

RESULTS

Table 1
Wilcoxon Signed-Ranks Test

Question	Statistical Data			
	PreTest Median	PostTest Median	Z	Sig.
How to evaluate the effectiveness of your own actions during a large-scale emergency event	3	4	-4.565	.000
The content of the Emergency Operations Plan (EOP) in your agency/organization	2	4	-4.548	.000
To which functional group in the Incident Command system (ICS) you would be assigned during a large-scale emergency event	2	4	-4.367	.000
Your agency's preparedness level for responding to a large-scale emergency event	2	4	-4.454	.000
How to preform a rapid physical assessment of a victim of a large-scale emergency event	3	4	-2.704	.007
Procedures for communicating critical patient information to those transporting patients	3	4	-3.292	.001
Identify the different abilities of key partners in your Emergency Operations Plan (EOP)	3	4	3.784	.000
Appropriate debriefing activities following a large-scale emergency event	2	4	-4.713	.000
Please provide an assessment of your OVERALL FAMILIARITY with response activities/ preparedness in the case of a large-scale emergency event	2.5	4	-4.631	.000

Contact Information

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RESULTS CON'T

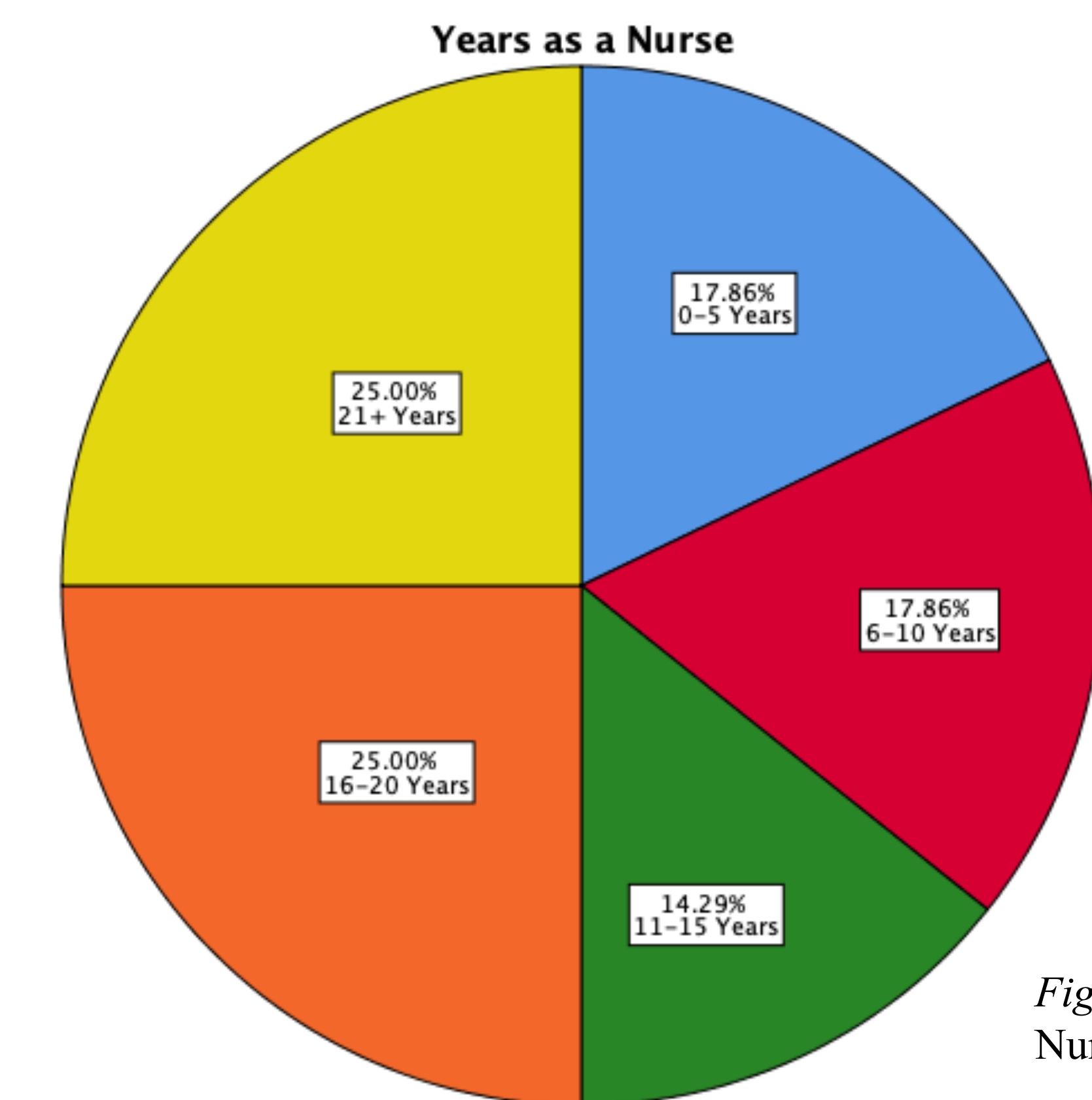


Figure 1. Years as a Nurse

IMPLICATIONS

Clinical Practice: There will not be a change in the daily clinical practice of the participants. However their practice will be significantly affected when a patient surge event occurs.

Policy: Similar to clinical practice there will be no direct effect on policy. However, institutions are required by CMS to run disaster drills every year. The findings of this study can lead to additional methods to fulfill this requirement.

Economic: Due to the free nature of the Hospital Surge Evaluation Tool, and its low impact when used, there is no economic consideration for its use

CONCLUSION

An institution must never adopt the 'this will never happen to us' mindset. It is vitally important for an institution to drill and be prepared for a patient surge. The results of this study have shown, with statistical significance, that the Hospital Surge Evaluation tool leads to increased surge management knowledge. It can be concluded that a computer-based simulated patient surge drill is a valid teaching tool for disaster education in the emergency department.

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