



Identifying Educational Needs: Training Gap Analysis of USAF Aeromedical Evacuation Technicians and Nurses

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Tiffany Losekamp, MSN, CNE, CHSE
En Route Care, Training, and
Simulation Researcher

Integrity ★ Service ★ Excellence



Disclaimer



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Learning Objectives



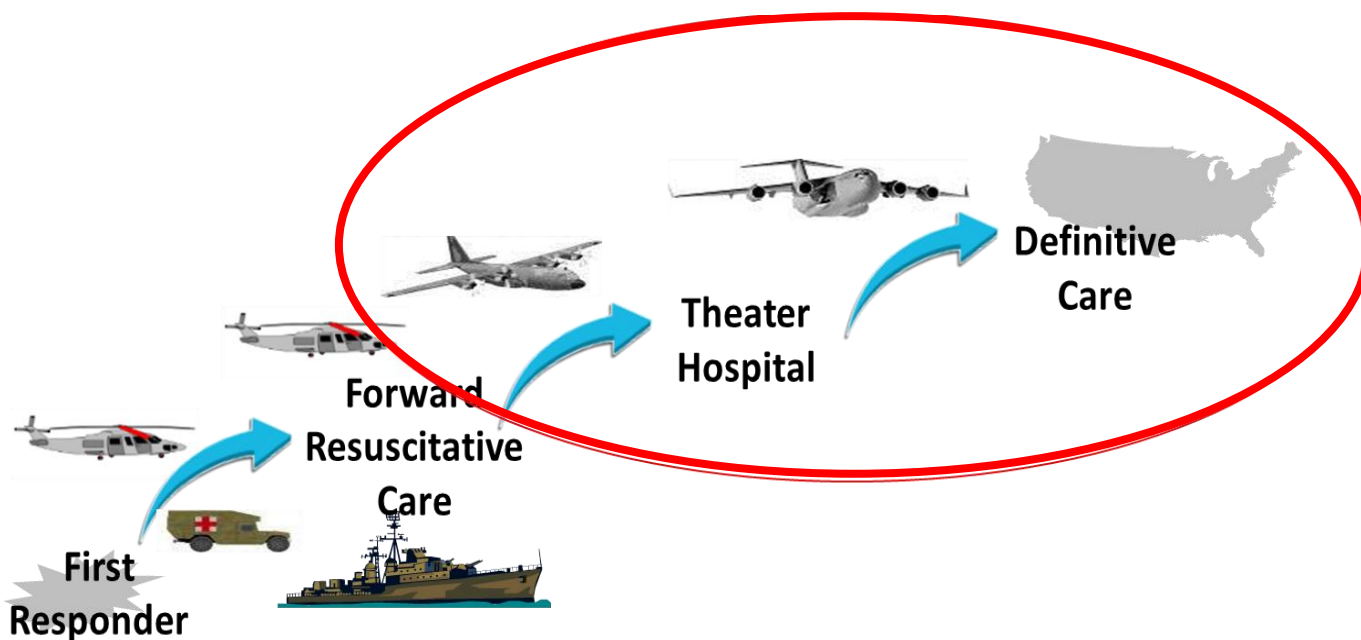
- ✧ **Discuss the process of completing a focused training gap analysis for educational initiatives**
- ✧ **Discuss the impact of training gap analysis in decisions regarding fund and time allocation**
- ✧ **Identify the learning needs of AE nurses and technicians**
- ✧ **Discuss the impact of the reported learning needs on sustainment training in AE**



Introduction



Declining need for combat casualty care has decreased opportunities for acute care and trauma clinical experiences for medics, impacting sustainment of readiness skills for future operations.





Unique Environment



Picture taken by FH Team member



Background



Personal Photo Taken by: Maj. D. Bevington

Increased need for training due to:

- ✧ **Downsizing of inpatient facilities**
- ✧ **High acuity of wounded warriors**
- ✧ **Decreased deployments**
- ✧ **Need for continued skills sustainment**

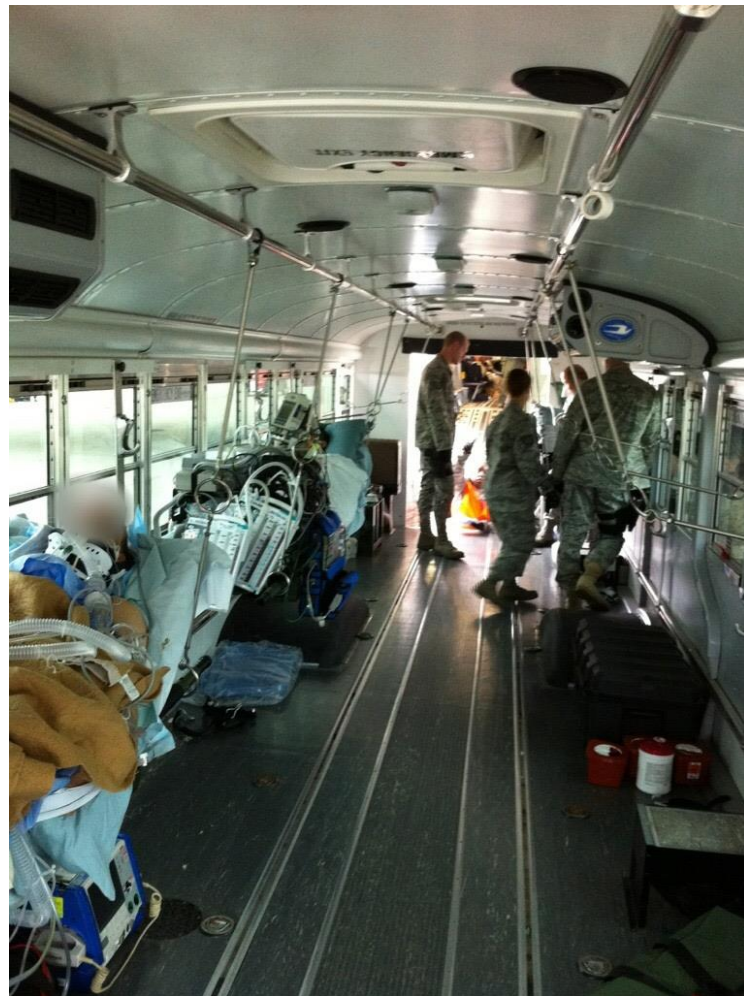


Identification of Training Research Need



An Integrated Review of Simulation Use in Aeromedical Evacuation Training (O'Connell et al., 2013)

- ✧ Effectiveness of simulation training
- ✧ Attributes of simulation
- ✧ Environmental aspects of simulation
- ✧ Use of simulation training in AE/CCAT operations



Personal Photo Taken by: Maj. D. Bevington

O'Connell KM, De Jong MJ, Dufour K, Millwater T, Dukes S, Winik C. Simulation use in aeromedical evacuation training: research gaps from an integrated review. *Clinical Simulation in Nursing*. 2013;66;3-15.



Methods



Picture taken by FH Team member



Study Aims:

- Describe the clinical experience of active duty (AD) flight nurses (FN) and aeromedical technicians (AET)
- Identify the clinical education needs of the AD FN and AET



Results



Demographics:

- 102 participants
- Representative of 25 to 33% of each of the AD aeromedical units
- 50% were AET
- 49% were FN
- Various educational levels were represented
- A majority of respondents had 3 to 5 years of clinical practice experience



Results



Summary of Research Methods:

- ✧ Subject matter experts (SMEs) were queried to identify how important certain tasks were for the FN and AET to perform. The SME data were compared against the AD survey data to identify skills gap
- ✧ Travel to the four major AD AE units; administered a single survey; each AD unit was represented by 25-33% of total FN and AET at that unit
- ✧ Descriptive statistics were utilized for analysis

Skill	SME Mean	AD FN/AET Mean	Skills Gap
Ventilator Patient	3.42 (N=12, SD=1.08)	2.87 (N=102, SD=1.17)	0.54
Neurology Patient	4.50 (12,0.52)	3.97 (100,0.87)	0.53
Mental Health Patient	4.83 (12, 0.39)	4.38 (101, 0.73)	0.46
Burn Patient	4.25 (12, 0.87)	3.80 (102, 0.86)	0.45



Discussion



- ✧ **Data from the study revealed the typical clinical experience of FNs and AETs.**
- ✧ **Allows effective decision making on training and competency tasks before clinicians take to the air with their AE squadrons.**
- ✧ **Study provides an evidence base for decisions regarding training and fund allocation.**
- ✧ **Project informs total service (active duty, Guard, and Reserve) training and potentially impacts policy.**
- ✧ **Provides a foundation for future simulation research efforts in education and training.**



Lessons Learned



- ✧ **Establish stakeholder buy-in early in development process**
- ✧ **Determine current education/training practices**
- ✧ **Build partnerships with end users throughout research process**
- ✧ **Have a transition plan for the results**



Learning Objectives



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- ✧ **Discuss the impact of the reported learning needs on sustainment training in AE**



Questions





Contact Information



Tiffany Losekamp – tiffany.losekamp.ctr@us.af.mil