

TriService Nursing Research Program Final Report Cover Page

Sponsoring Institution	TriService Nursing Research Program
Address of Sponsoring Institution	4301 Jones Bridge Road Bethesda MD 20814
USU Grant Number	HU0001-15-1-TS09
USU Project Number	N15-P05
Title of Research Study or Evidence-Based Practice (EBP) Project	Global Health Engagement Missions: Lessons Learned Aboard US Naval Hospital Ships
Period of Award	1 July 2015 – 30 June 2019
Applicant Organization	The Geneva Foundation
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Abstract

PURPOSE: The purpose of this research was to gather first-person accounts of experiential learning by military nurses, physicians, and corpsmen who participated in global health engagement missions aboard the USNS MERCY (T-AH 19) and the USNS COMFORT (T-AH 20).

DESIGN: Qualitative ethnographic methodology. Data collection consisted of fac-to-face, semi-structured interviews with individuals or small groups.

METHODS & SAMPLE: Narrative interviews were conducted on 141 military healthcare personnel (nurses = 50, physicians = 50, corpsmen = 41) who participated in Pacific Partnership 2015 & Continuing Promise 2015.

ANALYSIS: A systematic approach to analyze data occurred in a series of planned steps consistent with qualitative analysis methods: 1) interview transcripts were reviewed, 2) codes were defined and identified, 3) major themes across interviews were identified, 4) themes were organized into categories, 5) the research team interpreted, gained insights, and searched for meaning within participant narratives.

FINDINGS: Our study team identified 23 themes. The knowledge gained during this study has expanded the understanding of care provided during global health engagement missions and promote informed competent care for future military nurses, physicians, corpsmen, and leaders of these missions to function optimally on future global health engagement missions.

IMPLICATIONS FOR MILITARY NURSING: As part of a multidisciplinary healthcare team, military nurses play an integral role in the success of global health engagement missions and possess a vast amount of clinical and deployment knowledge related to the clinical care provided during these missions. However, effective knowledge transfer and dissemination of previous lessons learned among military nurses has remained challenging. This study provided valuable insights on methods to effectively capture and disseminate lessons learned for future deployed military nurses.

KEYWORDS: global health engagement, military, nursing

TSNRP Research Priorities that Study or Project Addresses

Primary Priority

Force Health Protection:	<input type="checkbox"/> Fit and ready force <input type="checkbox"/> Deploy with and care for the warrior <input type="checkbox"/> Care for all entrusted to our care
Nursing Competencies and Practice:	<input type="checkbox"/> Patient outcomes <input type="checkbox"/> Quality and safety <input type="checkbox"/> Translate research into practice/evidence-based practice <input type="checkbox"/> Clinical excellence <input type="checkbox"/> Knowledge management <input checked="" type="checkbox"/> Education and training
Leadership, Ethics, and Mentoring:	<input type="checkbox"/> Health policy <input type="checkbox"/> Recruitment and retention <input type="checkbox"/> Preparing tomorrow's leaders <input type="checkbox"/> Care of the caregiver
Other:	<input type="checkbox"/>

Secondary Priority

Force Health Protection:	<input type="checkbox"/> Fit and ready force <input type="checkbox"/> Deploy with and care for the warrior <input type="checkbox"/> Care for all entrusted to our care
Nursing Competencies and Practice:	<input type="checkbox"/> Patient outcomes <input type="checkbox"/> Quality and safety <input type="checkbox"/> Translate research into practice/evidence-based practice <input type="checkbox"/> Clinical excellence <input type="checkbox"/> Knowledge management <input type="checkbox"/> Education and training
Leadership, Ethics, and Mentoring:	<input type="checkbox"/> Health policy <input type="checkbox"/> Recruitment and retention <input checked="" type="checkbox"/> Preparing tomorrow's leaders <input type="checkbox"/> Care of the caregiver
Other:	<input checked="" type="checkbox"/> Global Health

Progress Towards Achievement of Specific Aims of the Study or Project

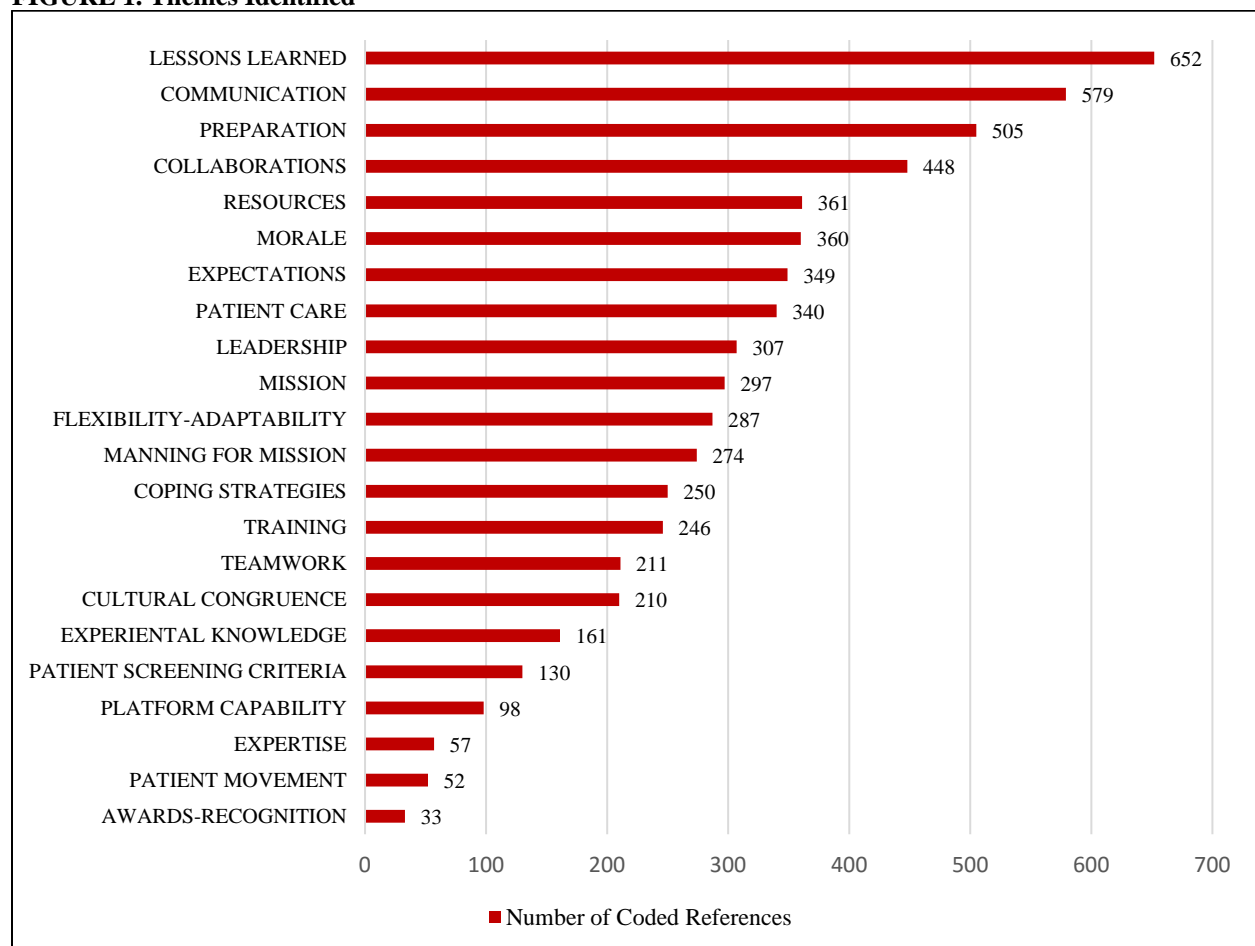
Findings related to each specific aim, research or study questions, and/or hypothesis:

Research Purpose: The purpose of this research is to gather first-person accounts of experiential learning by military nurses, physicians, and corpsmen who have participated in global health engagement missions aboard USNS MERCY (T-AH 19) and USNS COMFORT (T-AH 20).

Specific Aim #1: Capture experiential learning regarding clinical care provided during global health engagement missions among military personnel who have participated in these missions.

This study captured valuable lessons learned and knowledge essential for future ship board global health engagement missions. Figure 1 displays themes identified and number of coded references by military healthcare personnel in this study.

FIGURE 1. Themes Identified



1.) What new clinical knowledge are military healthcare providers learning about the care of populations encountered during global health engagement missions? The following themes described the new knowledge military healthcare providers learned about caring for populations during global health engagement missions.

Patient Care	Advanced states of disease, care of patient escort in addition to patient, optimization of safe patient movement on ship, and importance of patient handoffs during care transitions. Focus of mission emphasizes less direct patient care by the US and more focus on collaborative side-by-side care with host nation providers and knowledge sharing.
Surgical screening criteria	Ensuring standardized screening criteria implemented and communicated to healthcare personnel. Ensure optimal selection of patients for resources available within hospital ship and follow on care (either on ship or at host nation medical facility). Patient safety discussed as a priority for adherence to surgical screening criteria.
Cultural congruence (healthcare beliefs and practices)	Participants discussed the unknown health effects of these adjuncts (kava, betel nut). Participants also discussed gaps in knowledge regarding cultural beliefs about healthcare, socio/cultural/religious beliefs of host nation personnel. Participants described the cultural briefs presented during the mission could be optimized by selecting instructors with recent regional/cultural experience and expertise.

2.) What are the unique clinical challenges and deployment challenges associated with providing care during global health engagement missions? The themes listed below were associated with clinical and deployment challenges which affected the ability to provide care and complete the mission.

Leadership	Importance of good leadership was discussed extensively by participants and the ability to support staff and executing the mission. Exemplars of effective and ineffective leadership were provided. Additionally, the presence of multiple chains of command on mission was discussed extensively. Specifically, the challenges with communication and collaboration between MTF Leadership, DESRON 31 Leadership, and Military Sea Lift Command Leadership.
Collaboration	Importance of collaboration discussed extensively by participants: Advanced Echelon Medical Planners, Host Nation Participants, Partner Nations, USN, USAF, USA, USCG, PACOM, USAID, NGO's, Military Sea Lift Command, DESRON, etc.
Patient transport	Patient movement/transporting patients by helicopter, tender, and ground transportation was challenging for nursing staff. PP mission experienced high seas even while anchored off shore. This was unexpected and many nurses described feeling unprepared and untrained for this task and were concerned for the safety of patients. Participants also described the need for training on standardized hand offs during transitions of care during patient movement.
Flexibility/Adaptability	The qualities of flexibility and adaptability were the most common themes discussed by participants in this study. Frequent changes in mission planning at the request of mission leadership, host nation leadership, and mission personnel were described at length. Individuals who lacked flexibility adjusting to the extremely fluid nature of the mission were described as having difficulty on this type of mission.

Expectations	Expectation management was commonly described particularly for mission planning. Mission staff frequently performed roles other than their primary specialty-event planning, attending diplomatic events, translating for events, serving in a similar but different clinical role-recovery room nurse instead of peri-operative nursing, etc.
Awards/Recognition	Participants discussed the importance of formal and informal recognition for personnel to advance in their Naval careers.
Ethics	Participants discussed challenges with ethical dilemmas of wanting to provide medical care, but unable to provide follow up care or long-term care host nation participant would need. Specific examples include the ethical dilemma created by providing surgical care but not providing post-operative follow up appointments, antibiotic follow up, etc.
Morale	Participants described several challenges which affected morale. Those items included: long underway periods, shipboard food, and recognition for mission contributions. Many successes that contributed to morale included: interactions with host nation participants (expressed gratitude, thank you gifts-i.e. fresh coconuts, appreciating course certificates, wanting to take photos. Many participants also discussed the team cohesion experienced during the mission.
Platform Capability	Using boat tenders for patient movement was challenging, not designed for patient transport, small, vessels with excessive pitch and roll-not ideal for patient movement. Ship electrical capability outdated for digital age technology/devices. Large size of hospital ship limited ability to anchor pier side and limited maneuverability of ship.
Mission Clarity	Participants frequently described the mission in terms of civilian humanitarian missions. Understanding of mission varied widely.
Manning for Mission	Participants described challenges with manning document (i.e. no pediatrician on authorized manning document), selection of personnel (i.e. medical screening could be enhanced-some service members with significant mental health conditions deployed), last minute notification of deployment to personnel.
Communication	Participants discussed the challenges with communication particularly with receiving clear guidance from multiple chains of command. IT challenges were frequently described by participants.
Expertise	Participants discussed specific expertise that they possessed that was beneficial to the mission, but not part of authorized manning document (pediatrics, infectious disease, etc.)
Training	Participants discussed pre-deployment training, equipment training, mass casualty training, etc.

3. What resources for obtaining previous lessons learned do military healthcare providers utilize? Military healthcare providers described two main sources for obtaining lessons learned (described below).

TABLE 3. Lessons Learned

Experiential Learning	Very few participants had deployed previously on a global health engagement mission. Many participants discussed seeking out individuals with recent experiential knowledge. These individuals were frequently described as “people who had been there, done that.” Since the focus of the mission evolves based on the Geographic Combatant Commander theater security plan, participants with recent deployment experience are a valuable source of information and lessons learned.
Lessons Learned	Many participants stated they had no access to lessons learned or only had access to the shipboard lessons learned system when they arrived on the ship. Several participants described the lessons learned that are available on the ships shared drive. However, access to those lessons learned is not available until personnel is assigned to the ship. Participants described internal lessons learned and the process was valued by leadership. Few participants discussed available formal lessons learned resources: Joint Lessons Learned Website, APAN –Asia Pacific All Partners Network, etc.

3.) What are the gaps in care as noted by military providers on global health engagement missions?

Participants described the challenges with patient movement during the mission.

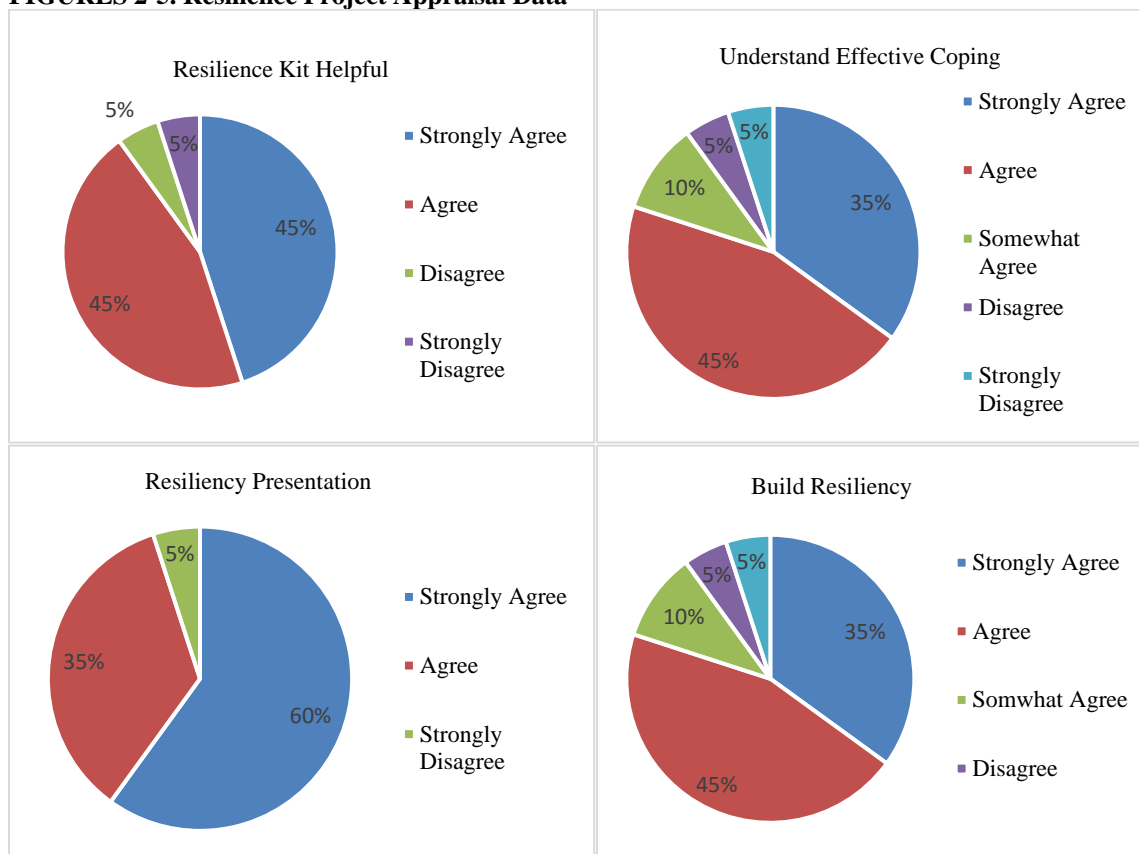
4.) What are the success stories regarding health care delivery during global health engagement missions? Several themes captured the success stories of delivering care during global health engagement missions (described below).

TABLE 4. Mission Successes	
Teamwork	Many examples of outstanding teamwork to overcome logistical or unexpected challenges were described. The surgical team was noted by many participants to have extremely high levels of team work and actively incorporated TEAMSTEPPS.
Coping	Participants described a variety of coping techniques. Many of these techniques were healthy techniques (exercise, self-reflection, journaling, spirituality, etc.) and some were unhealthy (smoking, excessive sleeping, etc.). Many individuals were not aware of stress during the mission, but realized some of the stressors during the interviews: working long hours, lack of privacy, lack of normal support systems, and lack of communications.
Preparedness	Within the preparedness theme, three interrelated dimensions of preparedness were identified: professional preparedness (completion of certification and educational courses), mental preparedness (taking the time to prepare for changes in life at sea), and personal preparedness (completing mission checklists for practical items needed and family preparation).

The follow-on resilience dissemination project directly contributed to enhanced readiness for deployed service members. This project developed a peer-to-peer brief on stress, coping strategies, and resilience based on findings from the coping theme in this study. Additionally, a pilot “resilience kit” was developed which included a pilot resilience resource, a journal, a book on resilience, and a pen. Navy Nurse Corps Officers were trained to deliver the brief and “resilience kit.” Both deployed service members of Pacific Partnership 2019 aboard USNS FALLS RIVER AND USNS BRUNSWICK as well as service members on PACBLITZ aboard USNS MERCY (total of 230 service members) received the resilience kit. Recipients of the project provided feedback on appraisal tool which included seven Likert

items and one open ended question. Data from the appraisal tool (Likert questions and open-ended feedback) revealed that participants valued the topics of stress, coping strategies, and resilience. Open-ended feedback was positive and participants were engaged with this topic. This project provided essential knowledge to military healthcare providers to improve awareness of stress, coping strategies, and building resilience. Additionally, this project promoted a military culture which values and discusses resilience and equips service members with this knowledge. It is our hope that this project contributed to a cascading positive effect of wellness and resilience for patients, military families and their communities.

TABLE 5. Participant Feedback: Resilience Project
“Thank you so much for providing these tools! Even knowing the Navy is interested in promoting resiliency is encouraging. One idea would be to provide resiliency training prior to deployment. Perhaps training one-two members of the mission to act as resiliency coordinators and regularly plan things like workout classes or mindfulness sessions.”
“A very important topic. We need more consistency from command to command. Each command should have similar resources. I believe WRNMMC has a resiliency team that serves the hospital.”
“I love the items that came with the kit and also the presentation for me. I love to write and I enjoyed the journal. I hope this kit will help others.”
“Looking forward to using this on next deployment. The book selection is great, the Chaplain's office could be a good distribution point for these.”
“This was a very nice kit, the journal will be very useful to write down thoughts, goals, or even just to vent and rant. The kits are greatly appreciated.”
“I think the kit is interesting. I have attended a few resilience trainings before but I can relate more to the information and technique provided in this kit because I can see the connection with people who went through the experience, did what I am doing and found it helpful.”
“This is an excellent idea for any military personnel facing a potential deployment.”

FIGURES 2-5. Resilience Project Appraisal Data

At the end of this project our study team collaborated with the NMCS D library staff to create a “resilience reading list” which was cataloged and displayed in the general library. This project was developed to promote knowledge of resilience and coping strategies by service members.

Relationship of current findings to previous findings:

This study was unique as it captured in depth lessons learned from military healthcare providers on shipboard global health engagement missions. No similar investigations have been conducted or published to our knowledge. However, global health engagement missions are important to the US National Security Strategy and National Military Strategy and have received increased attention by senior military leaders over the last several years. An increased operational tempo for GHE missions has led to an increase in GHE manuscripts since the start of this study. Several GHE manuscripts describe important lessons learned which will improve the readiness of future deployed service members.

One recent manuscript described the importance of the public health practitioner’s role in force health protection on GHE missions. Primarily, this article highlights the sanitation, hygiene, and infectious disease challenges associated with conducting GHE missions without the use of traditional hospital ships (EPF & field settings).¹⁰ Similar to our study, this study described the importance of medical prescreening for appropriate service members to deploy on these missions. In the described study, the medical prescreening process described was able to identify members unable to deploy and

rapidly found appropriate replacements. This article is also helpful as it describes tangible pre-deployment tasks for advance planners to complete to ensure force health protection during GHE missions.

Another recent manuscript describes the concept of embedded GHE teams.¹¹ This article is relevant to the current study as it discusses the formation of smaller tailored multidisciplinary team deployed for longer durations with long-term assessment, monitoring, and evaluation plans. This article supports the findings in our study particularly related to manning of the mission. Participants in our study described the challenges of manning for the mission (both overmanning for some specialties and under manning for other specialties) and efficient use of provider specialties on the mission.

Tatham et al. (2016) discusses the increased incidence of disasters worldwide and the increasing need for integrated disaster response between military and civilian organizations.¹² This article also provided valuable insight as to the need for interorganizational coordination. Participants from our study frequently discussed this need and our study team coded these comments in the “collaboration” theme.

Finally, a study published in 2015 conducted a content analysis of the documents contained within the GHE in Peacekeeping and Stability Operations Institute’s Stability Operations Lessons Learned and Information Management System.¹³ This study examined types of GHE missions and also concluded that increased availability of lessons learned (after action reporting) systems is needed.

Effect of problems or obstacles on the results:

Some of the challenges experienced during this study included: team communication across sites, lack of standardized IRB administrative processes, and long processing times for IRB amendment approvals. The long wait times for IRB approvals affected the ability to recruit participants at NMCP. Many potential participants had relocated by the time study recruiting commenced. Telephone interviews were added to recruit participants from the Continuing Promise 2015 mission. This allowed the study team to interview participants at other locations. Fortunately, the research team was able to capture telephone interviews to capture data from participants of the Continuing Promise 2015 mission.

Another challenge experienced during this study was many of the team members were senior leaders with numerous leadership & clinical responsibilities. Recruiting participants by team members at other sites was challenging. The mentor, PI, and research assistance travelled to NMCP for a total of three weeks to recruit participants. The dedication of the team to adapt from initial recruiting plans, complete the study amendment, and preserver to recruit participants helped overcome this challenge.

In the final year of the study, the PI was deployed. Although the study was largely complete, final dissemination efforts during this period were slowed due to the challenging work load during deployment. However, the research team prepared and disseminated research findings at the 2018 TSNRP Research and EBP Course. This was a positive experience for the junior team members as it allowed for professional development by preparing and presenting research findings.

Limitations:

The primary limitation of this study was the inclusion criteria of only military healthcare personnel deployed on hospital ships. Missions conducted aboard US Naval hospital ships also include other personnel (Medical Service Corps Officers, Navy Line Officers, Non-governmental organization personnel, etc.) Future studies, should include these personnel to capture the knowledge gained by these individuals. Therefore, the information gained by this study is limited to military health care providers deployed on ship based GHE missions.

Additionally, ship-based global health engagement missions and the class of ship used for these missions has rapidly evolved since the start of this study. Several missions have been conducted on EPF, San Antonio class ships, etc. which have different lessons learned and experiential knowledge that can be captured. While many of the data captured in this study will be applicable to future ship-based global health engagement missions, many of the lessons learned from this study may not apply to missions executed on different Naval vessels. Therefore, the findings from this study are not widely generalizable

Conclusion:

This study successfully achieved Specific Aim #1: Capture experiential learning regarding clinical care provided during global health engagement missions among military personnel who have participated in these missions. Our study team worked cohesively for the duration of the study period to capture experiential learning regarding clinical care and deployment lessons for GHE missions. Our analysis captured data from 141 military healthcare personnel and resulted in over 22 themes.

Significance of Study or Project Results to Military Nursing

Shipboard global health engagement missions deploy large number of military nurses to achieve strategic objectives of the US military. These missions also provide critical training platforms to train and optimize casualty care in a multidisciplinary, multinational, deployed environment. Historically, lessons learned from these missions have been challenging to capture and disseminate. This study captured an extensive amount of data from military nurses, physicians, and corpsmen to better equip future service members to deploy on these missions.

Nursing Clinical Practice & Leadership:

The results of this study provide first hand experiential knowledge on the successes and challenges of providing care during these missions. Themes identified include: lessons learned, communication, preparation, collaborations, resources, morale, expectations, patient care, leadership, mission clarity, flexibility-adaptability, manning for mission, coping strategies, training, teamwork, cultural congruence, experiential knowledge, patient screening criteria, platform capability, expertise, patient movement, awards recognition. The amount of data collected for this study is extensive and will continue to be disseminated over the next few years. However, some of the most significant findings of this study include enhancing pre-deployment training to increase mission readiness. The study team's manuscript "Shipboard Global Health Engagement Missions: Essential Lessons for Military Healthcare Personnel" [*in press*], describes five essential lessons for service members deployed on these missions. These lessons include five themes: mission clarity, preparedness, experiential knowledge, lessons learned, and flexibility/adaptability. One of the most surprising findings of this study was the lack of clarity and understanding of the mission and purpose of global health engagement missions' purpose among service members. Global health engagement missions are unique from combat missions. Clear guidance from leaders and providing formal pre-deployment GHE courses are critical to adequately prepare service members for these missions. Additional gaps in training identified in this study was the lack of required training for disaster management. Although GHE missions include disaster management and disaster subject matter expert exchanges were planned, pre-deployment disaster course work is currently not required prior to deployment. The expansion of the disaster management chapter in the Battlefield and Disaster Pocket Guide is a valuable resource addressing this gap. However, future pre-deployment training requirements are needed to address the need to be adequately trained and educated on disaster management.

Further, the ability to review meaningful lessons learned prior to deployment and discuss meaningful lessons learned with recently deployed personnel (capturing experiential knowledge) is also an essential lesson for future service members to ensure knowledge is captured and mistakes are not repeated during these missions. The PI for this study has presented findings of this study at twenty local, national, and international meetings and conferences with military nurses to discuss the importance of capturing experiential knowledge. Her recent efforts during deployment led to the pilot implementation of the web-based after-action reporting system for Pacific Partnership 2018. Collaboration on this project was possible due to the insights gained during this study and the clear need for easily accessible after-action reports.

Finally, one of the most important lessons captured from participants of these missions was the need to remain flexible and adaptable at all times. Although the common phrase "simper gumbly" is frequently used in the military, participants discussed a higher level of flexibility and adaptability was required during these missions.

Although this study was conducted on participants of hospital shipboard global health engagement missions, many of the knowledge generated from this study is relevant to other global health engagement missions. As the Requirement Evaluation Team examines the need for future vessels for global health engagement, it is unknown what size or vessel will be used in the future. However, many of the knowledge gained from this study applies to any ship based global health engagement mission.

Recommendations for Future Research:

Future research could include international host and partner nations to expand the lessons learned captured from multiple perspectives. The inclusion of other perspectives for this study was beyond the scope of our study team, however, it would also provide further opportunities for the US to expand collaborations with host nations.

Future research could also test interventions to address some of the gaps identified in this study (i.e. develop/enhance patient movement training for casualties, further examine coping and resilience interventions, leadership training, platform readiness training).

Changes in Clinical Practice, Leadership, Management, Education, Policy, and/or Military Doctrine that Resulted from Study or Project

Training Policy:

The USNS MERCY leadership was briefed annually during this study period for updates with research findings. The en route care/patient transport theme was particularly relevant, as this team was aware of the challenges experienced on previous missions. This led to a policy change for the USNS MERCY platform to require the Joint En Route Critical Care (JECC) training for all nurses on the “en route care team.” This requirement was added to the USNS MERCY orientation handbook. Although further work is needed to improve patient movement training for deployed military healthcare personnel and Navy-wide policy, this study provided valuable data to inform military leaders of this gap in readiness training.

Educational Resources:

A resilience reading list was created and cataloged at the Naval Medical Center San Diego medical library. The impact of this resource is unknown at this time; however, it is hoped this resource will provide important information on military stressors, effective coping strategies, and building resilience for service members.

Findings from this study were also included in the Battlefield and Disaster Handbook, 2nd edition, Disaster Chapter. The PI was a contributing author for the Disaster Chapter of this work. The disaster chapter serves as a reference guide for deployed military healthcare providers (assessment and treatment information, care of patients in disaster settings) and includes the most recent evidence-based recommendations for providing nursing care during disasters. The Battlefield and Disaster Handbook will be provided a copy for all deployed military nurses and provide copies for as many military nurses as possible (sponsored by TSNRP). This resource will be distributed to over 7,000 nurses and will contribute to providing evidence-based care for service members entrusted to the care of military nurses. Additionally, funds from this study purchased the Battlefield and Disaster Handbook for 500 Navy Corpsmen who complete readiness training through the Hospital Corpsman Basic Skills Program at Naval Medical Center San Diego. Similar to the military nurses that receive this resource, the Military Battlefield and Disaster Handbook will contribute to providing evidence based care for service members entrusted to their care in hospital and operational settings.

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Summary of Dissemination

Type of Dissemination	Citation	Date and Source of Approval for Public Release
Publications	King, H., "Asia Pacific Military Health Exchange 2017: Navy Nurses Collaborate with International Nurses," Navy Nurse Corps Newsletter; Asia Pacific Military Health Exchange Nursing Newsletter	NMCSO PAO Approval 09.15.2017
Publications in Press	<p>King, H., Bouvier, M., Todd, N., Bryan, C., Montalto, G., Johnson, C., Hawkins, R., Braun, L., Malone, J., Kelley, P. (2019). Shipboard Global Health Engagement Missions: Essential Lessons for Military Healthcare Personnel. <i>Mil Med</i> [<i>in press</i>].</p> <p>[Coping manuscript in progress]</p>	
Published Abstracts		

Podium Presentations	<p>CDR Heather King, NC, USN, CAPT John Malone, MC USN (ret.), CAPT Gregg Montalto, MC, USN, CAPT Christine Johnson, MC, USN (ret.), CAPT Robert Hawkins, NC, USN, CDR Lisa Braun, NC, USN, Ms. Monique Bouvier, MSN, Mr. Michael Coronado, CAPT Patricia Kelley, NC, USN (ret.), "Global Health Engagement Missions: Lessons Learned Aboard US Naval Hospital Ships," TriService Nursing Research Program Research and Evidence-Based Practice Dissemination Course, San Antonio, TX, 8.31.15, (presented preliminary data-prior to funding this study)</p>	NMCS D PAO Approval 08.03.2015
	<p>King, H., Kelley, P., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Coronado, M., Todd, N. "Global Health Engagement Missions: Lessons Learned Aboard US Naval Hospital Ships," Academic Research Competition, NMCS D, 4.21.17</p>	NMCS D PAO Approval 01.26.2017
	<p>King, H., Kelley, P., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Coronado, M., Todd, N. "Global Health Engagement Missions: Lessons Learned Aboard US Naval Hospital Ships," ESC Brief, USNS MERCY, 2.28.17</p>	NMCS D PAO Approval 02.23.2017
	<p>King, H., Kelley, P., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Coronado, M., Todd, N., "Collaborations Matter: A Powerful Tool for Global Health Engagement Missions," Asian Pacific Military Healthcare Exchange, Singapore, 5.22.17</p>	NMCS D PAO Approval 05.22.2017
	<p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Kelley, P., Todd, N. "Global Health Engagement Missions: A Qualitative Analysis of Lessons Learned," Military Health System Research Symposium, Kissimmee, FL, 8.27.2017</p>	NMCS D PAO Approval 08.31.2017
	<p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Kelley, P., Todd, N. "En Route Care During Shipboard Global Health Engagement Missions" Military Health System Research Symposium, Kissimmee, FL, 8.27.2017</p>	NMCS D PAO Approval 08.31.2017
	<p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Kelley, P., Todd, N. "Global Health Engagement-Flexibility and Adaptability of Medical Personnel on U.S. Navy Hospital Ships," Academic Research Competition, NMCS D, 4.20.18</p>	NMCS D PAO Approval 05.17.2018
	<p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Kelley, P., Todd, N. "Coping Strategies and Resilience: Narrative from Deployed Military Healthcare Personnel," TriService Nursing Research Program Evidence Based Practice and Research Dissemination Course, San Antonio, TX, 4.30.18</p>	NMCS D PAO Approval 04.30.2018
	<p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Kelley, P., Todd, N. "Team Science in the Department of Defense: Essential</p>	NMCS D PAO Approval 04.30.2018

	<p>Knowledge for Nurse Scientists," TriService Nursing Research Program Evidence Based Practice and Research Dissemination Course, San Antonio, TX, 4.30.18</p> <p>King, H., Kelley, P., Todd, N. "Building Resilience: Empowering Deployed Military Personnel on Global Health Engagement Missions," TriService Nursing Research Program Evidence Based Practice and Research Dissemination Course, San Diego, CA 5.1.2019</p>	<p>NMCS D PAO Approval 05.02.2019</p>
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Poster	<p>CDR Heather King, NC, USN, CAPT John Malone, MC USN (ret.), CAPT Gregg Montalto, MC, USN, CAPT Christine Johnson, MC, USN (ret.), CAPT Robert Hawkins, NC, USN, CDR Lisa Braun, NC, USN, Ms. Monique Bouvier, MSN, Mr. Michael Coronado, CAPT Patricia Kelley, NC, USN (ret.), "Global Health Engagement Missions: Lessons Learned Aboard US Naval Hospital Ships," Military Health Systems Research Symposium, Ft. Lauderdale, FL, 8.17.2015</p> <p>King, H., Kelley, P., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Coronado, M., Todd, N., "Global Health Engagement Missions Aboard US Naval Hospital Ships: Perceptions of Mission Readiness," Military Health Systems Research Symposium, Orlando, FL, 8.15.2016</p> <p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Coronado, M., Todd, N., "En Route Care During Shipboard Global Health Engagement Missions," TriService Nursing Research Program Research and Evidence-Based Practice Dissemination Course, San Antonio, TX, 4.24.17</p> <p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Coronado, M., Todd, N., "Cultural Competence: Gaps in Knowledge of Navy Healthcare Personnel During Global Health Engagement Missions," Sigma Theta Tau International's 28th International Nursing Research Congress, Dublin, Ireland, 7.27.17</p> <p>King, H., Kelley, P., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Coronado, M., Todd, N., "Global Health Engagement Missions: A Qualitative Analysis of Lessons Learned," Military Health Systems Research Symposium, Kissimmee, FL 8.23.2017</p> <p>King, H., Cook, W., "Ethical Dilemmas Experience by Health Care Personnel During Military Shipboard Global Health Engagement Missions," National Nursing Ethics Conference, Los Angeles, CA, 3.8.2018</p> <p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Kelley, P., Todd, N. "Coping Strategies and Resilience: Narrative from Deployed Military Healthcare Personnel," TriService Nursing Research Program Evidence Based Practice and Research Dissemination Course, San Antonio, TX, 4.30.18</p>	<p>NMCSD PAO Approval 08.03.2015</p> <p>NMCSD PAO Approval 06.28.2016</p> <p>NMCSD PAO Approval 01.20.2017</p> <p>NMCSD PAO Approval 11.12.2016</p> <p>NMCSD PAO Approval 08.31.2017</p> <p>NMCSD PAO Approval 11.01.2017</p> <p>NMCSD PAO Approval 05.08.2018</p>
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	<p>King, H., Kelley, P., “Global Health Engagement: Lessons Learned,” American Academy of Nursing: Transforming Health, Driving Policy Conference, Washington, DC, 11.1.2018</p> <p>King, H., Kelley, P., Bouvier, M., “Coping Strategies: Narratives from Deployed Military Healthcare Personnel,” AMSUS The Society of Federal Health Professionals, National Harbor, MD, 11.26.2018</p> <p>King, H., Bouvier, M., Braun, L., Hawkins, R., Montalto, G., Johnson, C., Bryan, C., Malone, J., Kelley, P., Todd, N. “Coping Strategies and Resilience: Narrative from Deployed Military Healthcare Personnel,” Stanford Healthcare Con, Palo Alto, CA, 6.26.2019</p>	<p>NMCSO PAO Approval 09.21.2018 BUMED PAO Approval 10.24.2018</p> <p>NMCSO PAO Approval 09.25.2018 BUMED PAO Approval 11.05.2018</p> <p>NMCSO PAO Approval 02.20.2019</p>
Media Reports	None	
Other		

Reportable Outcomes

Reportable Outcome	Detailed Description
Applied for Patent	N/A
Issued a Patent	N/A
Developed a cell line	N/A
Developed a tissue or serum repository	N/A
Developed a data registry	N/A

Recruitment and Retention Table

Recruitment and Retention Aspect	Number
Subjects Projected in Grant Application	90-135
Subjects Available	951
Subjects Contacted or Reached by Approved Recruitment Method	548
Subjects Screened	242
Subjects Ineligible	97
Subjects Refused	6
Human Subjects Consented	141
Subjects Who Withdrew	0
Subjects Who Completed Study	141
Subjects With Complete Data	141
Subjects with Incomplete Data	0

Demographic Characteristics of the Sample

Characteristic	
Age (yrs.)	40.0 ± 6.9
Women, n (%)	54(38.8%)
Race	
White, n (%)	(N/A)
Black, n (%)	(N/A)
Hispanic or Latino, n (%)	(N/A)
Native Hawaiian or other Pacific Islander, n (%)	(N/A)
Asian, n (%)	(N/A)
Other, n (%)	(N/A)
Military Service or Civilian	
Air Force, n (%)	(0)
Army, n (%)	(0)
Marine, n (%)	(0)
Navy, n (%)	(141)
Civilian, n (%)	(0)
Service Component	
Active Duty, n (%)	(141)
Reserve, n (%)	(0)
National Guard, n (%)	(0)
Retired Military, n (%)	(0)
Prior Military but not Retired, n (%)	(0)
Military Dependent, n (%)	(0)
Civilian, n (%)	(0)

Program Budget Summary Report

Company: The Geneva Foundation
User: Robinson, Kathleen

Period Start Date: 7/1/2015
Period End Date: 7/31/2019

Current Fringe Rate: 35.50%
Current G&A Rate: 19.80%



Contract: 10406 - Global Health Engagement Missions: Lessons L
Award Amount: 524,381.00
Total Estimated: 524,381.00
Total Funded: 524,381.00

Contract PoP: 7/1/2015 - 6/30/2019
Customer: TRISERVICE NURSING RESEARCH PROGRAM
Customer Contract ID: HU0001-15-1-TS09
Contract Manager: Robinson, Kathleen

Category	Budget	Period	Cumulative	Commitments	Cumul. + Commit.	Remaining Balance
Direct Expenditures						
Personnel						
Personnel Salary & Wages	234,749.00	173,920.85	173,920.85	0.00	173,920.85	60,828.15
Fringe Benefits (Burden)	0.00	60,295.54	60,295.54	0.00	60,295.54	-60,295.54
Total Personnel	234,749.00	234,216.39	234,216.39	0.00	234,216.39	532.61
Non-Personnel						
Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Travel	32,675.00	32,669.92	32,669.92	0.00	32,669.92	5.08
Supplies	19,514.00	19,513.79	19,513.79	0.00	19,513.79	0.21
Other	54,994.00	54,991.06	54,991.06	0.00	54,991.06	2.94
Consultant	0.00	0.00	0.00	0.00	0.00	0.00
Subcontractor	110,409.00	110,409.00	110,409.00	0.00	110,409.00	0.00
Total Non-Personnel	217,592.00	217,583.77	217,583.77	0.00	217,583.77	8.23
Total Direct Expenditures	452,341.00	451,800.16	451,800.16	0.00	451,800.16	540.84
Indirect Expenditures						
G&A Burden	72,039.54	72,316.76	72,316.76	0.00	72,316.76	-277.22
Other Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00
Total Indirect Expenditures	72,039.54	72,316.76	72,316.76	0.00	72,316.76	-277.22
Total Dir. + Indir. Expenditures	524,380.54	524,116.92	524,116.92	0.00	524,116.92	263.62
Fee Amount	0.00	0.00	0.00	0.00	0.00	0.00
Total Expenditures + Fee	524,380.54	524,116.92	524,116.92	0.00	524,116.92	263.62