Available online at www.sciencedirect.com

ScienceDirect

Nurs Outlook 67 (2019) 161–168

Nursing Outlook

www.nursingoutlook.org

Air Force Nursing Executive leadership impact on health care 2004–2008

Victoria Hughes, DSN, RN

Johns Hopkins School of Nursing, Baltimore, MD

ARTICLE INFO

Article history:
Received 27 June 2018
Received in revised form 29 October 2018
Accepted 25 November 2018
Available online November 272018

Keywords:
Air Force Nursing
History Military Nursing
Air Force Nursing Global Impact
Major General Rank

ABSTRACT

Recorded history allows us to recognize our past and can contribute to the present and future nursing practice. The purpose of this study is to examine the impact of the United States Air Force Nursing Executive leadership on military health care transformation, through Major General (Retired) Melissa A. Rank's personal stories and experiences. This study explores the development and impact of Air Force nursing in its historical, social, and global context between the years of 2004–2008. The oral history method was used to explore and record the professional life experiences of a great military nurse leader. The United States Air Force Nurse Corps has contributed to global healthcare via humanitarian medical support, medical disaster relief, aeromedical patient transport, development of best practices, advances in technology, education programs, and transformation in deployed medical care during times of war, peace, and natural disasters.

Cite this article: Hughes V. (2019, March/April). Air Force Nursing Executive leadership impact on health care 2004–2008. Nurs Outlook, 67(2), 161–168. https://doi.org/10.1016/j.outlook.2018.11.006.

Introduction

Over the past few years there has been a growing amount of nursing literature discussing the importance of global health and global nursing. Some nursing organizations have been advocating the need for global nursing leadership. However, global nurse leaders have existed for decades without public recognition for their contributions to the improvement of nursing care within the global health care environment. The contributions of military nursing leaders to global health are almost nonexistent within the nursing literature. In an attempt to address this gap in nursing history, through Major General (Retired) Rank's personal stories and experiences, this study explores the development and impact of Air Force nursing in its historical, social, and global context between the years of 2004 and 2008.

The Air Force General Order No. 35 established a medical service components of the Medical Corps, Dental Corps, Veterinary Corps, Medical Services Corps, Air Force Nurse Corps, and Women's Medical Specialist Corps ("Creation of the Air Force Medical Services", nd). With the creation of the Air Force Medical Service on July 1, 1949, each officer corps also received a contingent of enlisted medics (Air Force Medical Services History & Heritage, 2018). Later, the Air Force Women's Medial Specialist Corps evolved into the Biomedical Sciences Corps in 1965. The Air Force Veterinary Corps was disestablished in 1980. Today, the Air Force Medical Services (AFMS)
is composed of the Nurse Corps, Medical Corps, Dental Corps, Biomedical Service Corps, and Medical Services Corps. The enlisted personnel receive special training to support one or more of the AFMS specialty corps and are assigned under the specific service. For example enlisted

Corresponding author: Victoria Hughes, Johns Hopkins School of Nursing, 525 N. Wolfe Street, Baltimore, MD 21205-2110.
E-mail address: vhughes@jhu.edu

https://doi.org/10.1016/j.outlook.2018.11.006

dental technicians are assigned to the Dental Service. The term medic can be used to describe any airman who is a part of the Air Force Medical Service. When the term "medics" is used in this paper it will refer to an interprofessional team of officer and enlisted personnel.

The AFMS supports the United States Air Force (USAF) by providing full spectrum medical readiness to 200,000 airmen currently engaged in operations around the world. The AFMS provides health care to 2.6 million patients through a system of 239 clinics at 76 installations world-wide. Currently over 700 medical Airmen are deployed to over 30 nations supporting warfighters in ongoing operations (Air Force Medicine Trusted Care. . .Anywhere, ND).

Participant

Major General Melissa A. Rank served as the Deputy Assistant Surgeon General for Heath Care Operations, Office of the Surgeon General at Bolling Air Force Base in Washington, District of Columbia, United States of America (USA) from 2004 to 2005. She was responsible for supporting healthcare operations at 76 USAF Military Treatment Facilities and Air Force Expeditionary Medical Operations.

From 2005 until 2008, Major General Rank served as the Assistant Air Force Surgeon General for Medical Force Development and Assistant Air Force Surgeon General for Nursing Service at the Office of the Surgeon General, Headquarters USAF on Bolling Air Force Base in Washington, District of Columbia, USA. As Assistant Air Force Surgeon General, Medical Force Development, she established new and appraised existing personnel policy and enhancement actions for more than 34,000 active-duty officer and enlisted medical personnel within the five corps services that collectively make up the personnel for the Air Force Medical Service. She collaborated with Department of Defense agencies and Air Staff directorates to establish and meet future staffing needs. Her directorate was also responsible for all medical force education and training programs for all AFMS personnel. As Assistant Air Force Surgeon General, Nursing Services, she created and evaluated nursing policies and programs for 19,000 active-duty, Guard and Reserve nursing personnel. The Air Force Nursing Services personnel includes officers who function in advanced practice and registered nursing roles and enlisted personnel who function as independent duty medical technicians, paramedics, emergency medical technicians, and medical technicians. When the term nursing is used in this paper, the reference is to personnel who are assigned to Nursing Services as part of the Air Force Nurse Corps. When the term medic is used, the reference includes an interprofessional team of AFMS officer and enlisted personnel assigned outside of the Air Force Nurse Corps.

Rarely does a nurse rise to a prestigious position with such a high level of responsibility and potential to influence healthcare on not just a national, but an international level. Major General Rank was responsible for the operations and quality outcomes of all of the medical education and training programs. Between 2000 and 2006, the USAF Medical Service "supported 202 worldwide missions and exercises, treating 1.47 million patients, assisted 2,700 surgeries, and helped train 4,200 foreign medics" (Rank, 2006, p.2). The total patients evacuated from theater in support of Operations ENDURING FREEDM and IRAQI FREEDOM between October 10, 2001 and April 14, 2006 was 33,615 with 6,243 evacuations due to battle injuries (Rank, 2006). During 2005, the USAF "deployed 2,369 nursing service personnel in support of Operations ENDURING FREEDOM and IRAQI FREEDOM" (Rank, 2006, p. 2).

Within the military, an officer is promoted based on demonstrated leadership potential. Major General Rank achieved the highest rank available to a nurse at the time of her service. In addition, she became the first nurse to serve as the Assistant Surgeon General of Health Care Operations. In her position, she had a direct influence on the strategical planning, training and education to support the USAF Medical Services' world-wide missions.

Research Method

The historical research methodology for this study was oral history. Oral histories explore and record the lives of nurses resulting in a recorded understanding that allows us to recognize our past and can contribute to the present and future practice (Thomas & Rosser, 2017). Active listening techniques such as paraphrasing, clarifying, and exploration were used as methods to produce deep listening. Deep listening is a concept within the mindfulness movement that denotes present, respectful and effective listening (Abrams, 2016). Analysis involved examination and interpretation of professional, military, nursing, and personal perspective to enhance historical understanding.

Procedure

In compliance with the Oral History Association guidelines, Institution Review Board permission, informed consent, and audiotaped interviews were obtained by the investigator. The interview was transcribed verbatim and the accuracy of the transcription was double checked with the participant. The semi-structured survey used to guide the interview was based upon an original nurse survey developed by Dr. Lucinda McCray, Professor of History at Appalachian State University. An expert panel of executive nurses, who have previously served within the USAF in senior nurse leadership positions, were asked to suggest modifications to the questions for appropriate use with an Air Force executive level nurse. The survey responses to questions that described Major General Rank's experiences as Air Force Nurse Corps Chief are the foundation for the content included in this paper.

Findings

Context

When Major General Rank was assigned as the Deputy Assistant Surgeon General for Heath Care Operations in 2004, there were two-theater wars underway in Iraq and Afghanistan that continued throughout her tenure as Chief, Air Force Nurse Corps. During her tenure from 2004 to 2008, the AFMS was supporting two major theater hospitals, humanitarian missions and other national and international contingencies.

Major General Rank remembered:

> "There were two-theater, major theater wars underway with little contingencies popping up here and there. Some humanitarian missions. Korea, North Korea was flexing at that time. And we were in a state of steady deployments. And the nursing shortage was still critical. Remember the financial crash of 2008 and that sent us all into a spin…working-age adults were not earning enough money to meet their needs" (M. Rank, survey response, March 2016).

As early as 2003, military nurses were assigned to Bagram and Kandahar, Afghanistan to provide medical support for more than 7,000 United States and 9,000 coalition deployed forces (Scannell-Desch, & Doherty, 2010). The theater hospital configuration was built upon the Expeditionary Medical Support System (EMEDS) which is a modular field hospital with nursing personnel working in an emergency department, intensive care unit, intermediate care ward and surgical department (Jano, 2008). An aeromedical staging facility is often added as part of the EMEDS configuration (Jano, 2008). The medical personnel to work at the Air Force EMEDS theater hospitals are not deployed together as a unit, but come from multiple locations and branches of services such as the Regular Air Force, the USAF Reserves, the United States Army, the United States Navy and the United States National Guard. The tour length of medical personnel vary from 45 days to 120 days, or over 365 days with a turn-over rate of staff up to 100% after 120 days of working together. The challenge was to blend this diverse population of medical personnel into a team that can provide complex care with intensive clinical operations within a highly stressful combat zone.

Major General Rank described the importance of all branches of the military working together effectively to provide the best possible medical care for the injured through joint interoperability.

> "We were all on the battle field doing the same things, at the same time, with the same skills. Fortunately, we began at Balad to assign Army and Navy nurses. Bagram had all three services in it. And we began to try to capitalize really hard on what we all bring to the table versus have our EMEDS and the Army CASH and the Navy answer to that all doing the same thing" (M. Rank, survey response, March 2016).

The USAF expanded the theater hospital at Balad AB, Iraq, within five miles of enemy and friendly force conflict. Because of the short distance, casualties often skipped forward resuscitative care to go directly into the theater hospital, resulting in a steady flow of high-acuity patients (Jano, 2008). In just 1 year, the USAF theater hospital in Balad averaged 430 patient admissions per month with 65% of the patients having trauma injuries. Of the trauma patients, 85% received surgery within 24 hours with an average of 4.2 surgical procedures per patient and a 98% survival rate (Jano, 2008). During the same year, the USAF theater hospital in Bagram, Afghanistan admitted an average of 145 patients per month with 48% of the injuries being related to trauma. Of the patients with trauma injuries, 90% were operated on within the first 24 hours with an average of 3.2 surgical procedures per patient and a 99% survival rate (Jano, 2008).

The USAF Medical Service consists of five distinct medical corps and enlisted medical technicians (Air Force Medical Service, 2018). The personnel who serve within the AFMS and other branches of the military are sometimes referred to as medics. Major General Rank talked about some of the lessons that she learned earlier in her career while working with military medics to care for those wounded in battle.

> "The deep, lasting bond we had as medics among each other. We had a common bond with a common purpose on common ground. I did not experience these types of deep bonds prior to entering the military and nor am I exposed to it now that I am retired. I realized after the Beirut Bombings and witnessing the Marines at Wiesbaden Regional Medical Center that I was serving something far greater than my own life. In our nursing hands, the lives of the nation's heroes and their families depended on us to care for them as if they were our parents, siblings and loved ones. I met Marines and I met their 4-star commander. I witnessed that deep bond between a Marine and his commander. A Black marine with almost every bone in his body broken was in the ICU. And when he opened his eyes and saw his commander, he pulled himself to attention. I learned the importance of serving something greater than yourself. He looked at his commander and said "Semper Fidelis". I learned that respect is something that you do not have a right to have. You have to earn it" (M. Rank, survey response, March 2016).

As the Assistant Air Force Surgeon General, Nursing Services, Major General Rank was responsible for all nursing personnel to include offer and enlisted. In this role, she became concerned about the clinical competency of nurses and technicians deploying to take care of wounded service members and foreign nationals.

She believed that ensuring the clinical competency of the nurses and enlisted medical technicians was paramount.

Major General Rank stated: "As nurses we must accept fully our obligation to provide quality nursing care to our communities and to the patients entrusted to us" (M. Rank, survey response, March 2016). She discovered that some of the field-grade nurses, who had been away from bedside nursing for many years, no longer felt confident in their clinical nursing skills. Within the Air Force, field grade officers hold the higher ranks of major, lieutenant colonel and colonel. Often the field grade nurse officers are performing higher leadership and management roles, while the company grade nurses in the lower ranks of second lieutenant, first lieutenant, and captain are performing more hands-on nursing care.

Major General Rank become concerned that company grade nurses who were repeatedly deploying for medical support would begin experiencing burn out and compassion fatigue.

> "I knew of nurses who were Lt Cols who were sent to war who trembled when they put in IVs. When they were told to push the epinephrine, start the IV they were a bundle of nerves. Again we get back to taking the test. If you can't take the test of what is necessary and execute it competently, confidently, assured, certain in yourself and your skills, then again I felt compelled to get everyone back to clinical practice. I wanted colonels at the bedside. I wanted to deploy Lt Cols. We were deploying our captains over and over again. And they were showing the signs of too many deployments" (M. Rank, survey response, March 2016).

Clinical Skills Sustainment

Major General Rank describes one of the greatest challenges during her tenure as Air Force Nurse Corps Chief.

> "Learning how we provide our best evidenced-based nursing care to our countrymen in times of peace or disaster, to provide humanitarian aid to our friends and allies in need, and to provide humanitarian assistance to other countries caused by natural disasters. The best way for nursing personnel to maintain currency and be effective in deployed or humanitarian settings is to have hands-on experience as inpatient nurses" (M. Rank, survey response, March 2016)."

General Rank's number one priority as Chief, Air Force Nurse Corps, was to focus on clinical skills sustainment. Major General Rank stated:

> "Nursing's value is that we are clinical discipline. And it is who we are and what we do. In 2006, I released a policy mandating nurses working in outpatient and non-clinical roles complete 168 hours of annual training in inpatient units" (M. Rank, survey response, March 2016).

The new policy sent the message to all of the nurses that clinical nursing skills are important and clinical practice is a valuable part of nursing. In order to achieve the best training and clinical opportunities to practice nursing skills, the Air Force Medical Service developed training affiliation agreements to allow nurses to practice.

> "Of course, I am also proud in that we developed many more training affiliations. St Louis School of Nursing and San Antonio - wherever we could find training platforms we built them and we were welcomed to include those at Wright Patterson. UM Shock Trauma at Maryland in Baltimore was another. Anywhere that we could find them, we were going to create them. And we are expanding our training affiliations to 50 (M. Rank, transcription of interview, 2016)."

The efforts at clinical sustainment of skills and better clinically preparing field-grade nurses for deployment, who had been primarily assigned to positions away from the patient bedside, began to show benefits at the deployed medical facility locations. The complaints about more senior ranking nurses not feeling confident in their skills stopped.

In addition to the 168 clinical hour policy, Major General Rank continued to build upon the past work of the former Corps Chiefs. She continued to lead the development of the Critical Care Nursing Fellowship program to meet high demand for a low number of available critical care nurses. She worked with Wilford Hall Medical Center, National Naval Medical Center, Bethesda, Walter Reed National Military Medical Center, and the Center for the Sustainment of Trauma and Readiness Skills (C-STARS) at the University of Maryland, to not only produce new critical care nurses but to refresh skills for critical care nurses working outside of the critical care units. In addition, her administration pursued other colleges and universities around the nation that were co-located near military medical centers and military hospitals to assist with developing critical care specialty skills. Furthermore, she made effort to improve the skill level of the critical care medical technicians by obtaining funding for the Critical Care Technician Course. This initiative built upon the efforts of previous Corps Chiefs to increase the available number of highly trained and competent critical care medical technicians to support disaster response, contingencies, and field hospital missions.

Major General Rank described the impact of quality nursing care on mortality rate in Balad.

> "The injuries that we encountered in two major theater wars were devastating wounds delivered from explosive devices. Yet, the mortality rate from these combat injuries were less than in any previous war, from 23% in Vietnam to 10% or less today. At the Air Force Theater Hospital in Balad, Iraq, we had a 98% survival rate. This success is due to dramatic improvement in trauma care but is mostly due to the fact that

> our critically injured receive one-on-one, around-the-clock care from highly trained and dedicated medics" (M. Rank, survey response, March 2006).

Major General Rank believed that all nurses, regardless of leadership position, should be able to take the clinical test. If leaders expect others to be clinically competent, then the leaders need to be clinically competent. Major General Rank set the clinical leadership example by personally flying as a member of the aeromedical evacuation crew from the United States to Europe and even onto Kuwait; Balad, Iraq; and Bagram, Afghanistan. She accrued 30 hours of clinical time during aeromedical evacuation missions doing bedside nursing care between December 2007 and March 2008.

Major General Rank described some of the aeromedical missions during which she cared for patients:

> "I did not want to just be behind a desk as the Corps Chief during my last 18 months, so the Balad nurses were asking for me to come. When the Surgeon General visited them, they asked: 'Why can't General Rank come? We appreciate you visiting but why can't General Rank come.' And the first time I was denied. The second time the request made it through. The second time they stopped me in Germany, but the third time they let me go into Iraq and Afghanistan. The story behind this was that I did about 10 missions out and back. I completed aeromedical evacuation missions during my last 18 months at the Surgeon General's Office into Germany, (Lajes) Portugal, Afghanistan, and Iraq and back home to Andrews AFB after caring for our wounded warrior's inflight was incredibly rewarding. They were grueling hours but was very rewarding to be able to take care of our warriors. And so, the last mission out of Balad we do an engine running on-load for the patients because it was so dangerous. The aircraft commander tells us when to report to the flight line with the patients and we come immediately in the A/E buses and ambulances. We load the patients in about 15 minutes or less and a tactical take off is used to depart because it is so dangerous to remain on the ground for any period of time. We land in Germany and we are waiting to take off for Afghanistan and I turn on my blackberry and there are messages galore that said "Thank God that you are safe". I opened up the one from the Iraq Combatant Commander and he said the enemy blew up the A/E buses and ambulances as soon as we had left. And I thought if the aircraft commander called 10 minutes later, we would have all been in buses and ambulances" (M. Rank, survey response, March 2006).

The Aeromedical evacuation crew consisted of two flight nurses and three medical technicians who are responsible for the medical care of up to 113 patients on various types of aircraft (Brewer & Ryan-Wegner, 2009). During 2003, 11,183 patients were aeromedical evacuations from Iraq to America. Of the identified patients, 94% flew classified as routine evacuation status. The number of patients diagnosed with disease and non-battle injuries were six times as common as battle-related injuries (Harman, Hooper, & Gackstetter, 2005). The majority of patients transported on routine aeromedical evaluation flights are ambulatory and stable litter patients (Brewer & Ryan-Wegner, 2009). But the types of injuries that patients sustained during the war required a more advanced type of patient transport resulting in the development of Critical Care Air Transport Teams (CCATT). Major General Rank's critical care training initiative provided a supply of critical care nurses to help meet the demand for patients needing CCATT transport.

The CCATT concept was initially conceived in the early 1990s (Johanningman, 2007). The assumption was that surgically stabilized battle injured patients would require transport at the 36 to 48 hr time-frame (Johanningman, 2007). As the number of battle injured patients increased, as a result of the conflicts in Iraq and Afghanistan, the number of patients requiring critical care transport increased. The USAF CCATT, composed of a critical care nurse, a critical care capable physician, and a respiratory therapist, prepared patients for flight, monitored and intervened as necessary during flight, and maintained the continuity of care in an extremely fluid care environment (Brewer & Ryan-Wegner, 2009). In contrast to civilian medical transport in aircraft designed to provide medical care, the USAF CCATT transported stabilized, but not necessarily stable patients in cargo planes. Therefore, the CCATT had to bring all of the patient supplies and equipment needed to care for critically injured patients for the estimated 2,500 to 4,000 mile transport in a less than ideal environment (Bridges & Evers, 2009). The cargo plane environment was often cold and noisy with varying vibrations and low lighting.

Between October 2001 and May 2006, a total of 2,439 patients were moved via USAF CCAT out of the Area of Responsibility (AOR) in Iraq or Afghanistan. Out of the 1,995 patients moved via USAF CCATT to Landstuhl Regional Medical Center in Germany, 69% of the patients were diagnosed with polytrauma and 32% had a neurologic injury (Bridges & Evers, 2009). It is amazing that the USAF aeromedical transport, to include CCATT, was able to have over 98% patient survival rate. The huge gains in patient survival were partly due to the critical link of aeromedical transport, moving combat casualties to definitive care medical facilities in as little as 36 hours from time of injury. These aeromedical transports would not have been possible without the support of the Total Force Nursing composed of Air Force Active Duty, Reserve, and Guard nurses.

> "While the aircraft platforms have changed, the fundamentals of care in the air have not changed. The Total Nursing Force construct has once again proven its worth through the thousands of aeromedical missions manned by active duty, reserve, and guard aeromedical crews" (M. Rank, survey, March 2016).

Advancing Nursing

Major General Rank described some of the advances in nursing within the USAF.

> "What I saw happen over 32 years is that we began to think more like our practitioners do and our nurse researchers do and we are looking to deliver evidence-based care based on good solid evidence-based practice with guidelines to guide us. We have shown that we can measure the outcomes of our patient care, manage high-risk populations, and give good case management services. We have improved patient outcomes. Research is just steeped in that. In bachelors prepared nurses, in particular, we have improved patient outcomes, shorter hospital stays, better patient satisfaction and decreased patient mortality. I think we are more critical thinkers now, and we know how to problem-solve and make good decisions for our patients. But the bottom line is that we need to continue our journey to excellence, nursing excellence" (M. Rank, survey, March 2016).

The quantity of military nursing research papers increased significantly since the commencement of the Gulf War in Iraq from 2003 onward with most of the publications emanating from America (Currie & Chipps, 2015). The topics in the military nursing research shifted from professional and occupational issues to clinical issues, particularly in the area of trauma (Currie & Chipps, 2015). Some of the medical advancements occurring during the war focused on preventing shock and pain management. Advances in battlefield dressings and combat gauzes resulted in measures that could halt bleeding in as little as 15 seconds on the battlefield (Signor, 2014). The Combat Application Tourniquet, one-handed tourniquet, allowed patients to apply pressure to bleeds without assistance (Signor, 2014). Advances in pain management included advanced regional anesthesia and lozenges containing analgesic that provided pain relief without sedation (Signor, 2014). The advances in military nursing knowledge provided opportunities for translation into civilian nursing, particularly in the areas of trauma, critical care, mental health, and perioperative (Currie & Chipps, 2015).

Major General Rank met with healthcare leaders from other countries, such as the Turkmenistan delegation, to share medical training initiatives and discuss clinical care lessons learned from providing care during wartime. From 2002 until 2008, the U.S. strategy was to defeat the Taliban military and rebuild core institutions of the Afghan state such as healthcare (Witte, 2018). Air Force nurses not only deployed to contingency hospitals to care for battle injuries, but also deployed as instructors and mentors to help develop nursing skills in Afghani National Army nurses (Wielawski, 2011). The Air Force mentors developed lesson plans on topics from nursing fundamentals to the concept of team response to trauma (Wielawski, 2011).

Major General Rank hosted a military nursing symposium to bring together and create partnerships between military nurses from countries throughout the Asian-Pacific Region in 2007. Major General Rank hosted the first official Asian-Pacific Military Nursing (APMN) Symposium in Hawaii with the intent for the symposium to be hosted at different countries throughout the Pacific. In 2008, the second APMN Symposium was hosted in the Republic of Korea and provided an opportunity for nurses from other countries to present research and best nursing practices, tour local hospitals, learn more about the Korean culture, and share education, training and practice information. By 2009, more than 200 military nurses from 14 Asian Pacific countries gathered in Vietnam for the 3rd annual APMN Symposium. The symposiums highlighted nursing education, career development, global disaster preparedness and management. The theme for the conference was "Promoting Global Military Nursing Cooperation" (Friday, 2009).

Global Humanitarian Medical Response

As the Assistant Air Force Surgeon General, Medical Force Development, Major General Rank continued to lead the preparation of Air Force medics to provide humanitarian relief and medical training for nations throughout the world. During Major General Rank's tenure as Air Force Nurse Corps Chief, the AFMS supported numerous medical humanitarian missions throughout the globe. It was very difficult to balance the allocation of nursing resources for stateside, humanitarian, disaster response, and battlefield patient care. A nation-wide nursing shortage was underway.

Major General Rank described the changes in number of nurses serving on active duty in the Air Force during wartime.

> "One thing that I noticed while I was corps chief that I noticed was more women were entering the medical corps, more women were becoming chaplains, more women were entering roles that they had never entered before. And therefore, they were not entering nursing. So, the job market, and recruiting was really an issue. In 2008, approximately 3600 nurses made up the active duty Air Force Nurse Corps. A little more than a decade ago, there were more than 5500 Air Force nurses serving on active duty. Even with this significant decrease in overall numbers, there is still, however, a constant need to bring in nurses to prepare us for tomorrow" (M. Rank, survey response, March 2016).

Even with the decrease in Air Force medics serving on active duty, the support for wartime, disaster relief and humanitarian missions continued. Major General Rank remembered the operational tempo of the AFMS being very high with a decrease in nursing personnel to support the growing demand. There were far too many USAF Medical Service humanitarian responses between 2004-2008 to include in this paper, but a sample of the

medical missions are discussed. Nursing services personnel participated along with interprofessional team members from the other AFMS Corps to support worldwide medical missions. The term "medics" is used to describe the officer and enlisted interprofessional teams. In 2004 a 13-person team of Air Force Reserve medical personnel provided medical treatment for 15 days to 2,800 residents of 16 villages around Camp Loumia, a village located in the central African nation of Chad (Babin, 2004). In 2005, Air Force medics worked alongside Paraguayan military doctors for 15 days in four villages in the Department of Cordillera, a southern region of Paraguay, to provide humanitarian medical treatment to hundreds of villagers waiting in line for a chance to be seen by a doctor (Cloutier, 2005). In 2006, a group of Air Force Medics stationed in Germany participated in a humanitarian exercise called Med Flag 2006 with the objective to treat as many people as possible and to work side by side with the Ghanaian doctors to learn about regional diseases. The Air Force medics spent four days treating patients from the West African city of Ghana and surrounding rural areas (Anderson, 2006). In 2007, a team of 10 USAF, Army and Navy medical service members provided medical humanitarian assistance and trained local medical staff in the Pacific island nation of Vanuatu. In 2008, a team of Air Force medics participated in nine medical missions, during a three month period, as part of the New Horizons medical readiness training exercise to provide free medical care to 12,414 Peruvians living in the poorest regions of Ayacucho, Peru (Tomiyama, 2008).

Limitations

The oral history was only conducted with one executive nurse leader. By virtue of this research approach, the data has been compiled based on the participant's memories. Within the oral history methodology memory is a feature recognized and accepted in the literature (Thomas & Rosser, 2017). In order to expand the content, other historical sources were added to provide more details on military deployment and humanitarian events related to global health.

Discussion

The foundation of patient care during peacetime, wartime, disaster relief, or humanitarian medical support is sustained, competent, clinical nursing skills. Our greatest strength in nursing is our ability to provide 24/7 quality clinical care to those in need. Nurse leaders need to ensure that the nursing workforce has the skills, competencies, current knowledge, resources and support to provide up-to-date patient care (M. Rank, survey response, March 2016).

The oral history of Major General Rank illustrates that a path to nurse leader influence is through relationship building. Nurse leaders must build and sustain relationships with superiors, peers, subordinates, and other professions during the pleasant times and through the tough periods. Military nurses have demonstrated time and time again that extraordinary challenges can be overcome through teamwork and synergy. A common vision and desire to serve something greater than oneself can be a strong motivator (M. Rank, survey response, March 2016). Nurse leaders need to be able to communicate appreciation for nurse contributions in a manner that is meaningful.

Within the global community, nurse leaders must be willing to share medical technology and educate global healthcare partners with content that fits within the cultural context. Regardless of the technological advancements, the nurse is always the most valuable instrument. No technology can replace basic nursing assessment, patient engagement, and skilled intervention. Whether at home or on a medical mission, every nurse has the ability to change the world, one patient at a time.

Air Force executive nurse leaders have impacted the global health community via medical technology development, best practices in trauma care, transformation in patient transport, humanitarian medical relief, development of nurse training, and diplomatic efforts. Air Force nurses have provided care to multinational military service members, civilians, and children during times of war, famine, disease, and natural disasters. But perhaps one of the most incredible achievements of our day is that nurses are, not only participating in interprofessional teams, but actually leading these teams. Major General Rank, in her role as the Assistant Air Force Surgeon General for Medical Force Development, led the education and development of all the interprofessional personnel assigned to the AFMS. As nurses have assumed these interprofessional leadership roles, the doors have opened for other nurse leaders as evidenced by the appointment of the first nurse and first woman to ever serve as the Air Force Surgeon General. For the first time in Air Force history a nurse, Lieutenant General Dorothy Hogg, was selected to lead the AFMS and promoted to highest ranking position ever achieved by an Air Force nurse (U.S. Air Force Medical Services, ND). Lieutenant General Dorothy Hogg, a nurse professional, serves as the highest ranking Air Force Medical Professional (Surgeon General Leadership ND, 2018). I wonder how the movement of military nurses into these high leadership positions may influence civilian nurse leader movement into higher interprofessional leadership positions in the civilian and other governmental organizations. Behind the amazing advances in medical care, humanitarian medical relief, training initiatives, and best practices are some incredible, visionary nurse leaders.

Supplementary material

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.outlook.2018.11.006.

REFERENCES

Abrams, L. (2016). *Oral history theory* ((2nd ed)). Abingdon: Oxon and New York: NY: Routledge.

Air Force Medical Service (AFMS). (2018). website accessed on March 1 http://www.airforcemedicine.af.mil/AFMS-Priorities/Trusted-Care-Vision/.

Air Force Medicine Trusted Care. . . Anywhere (ND). (2018). Air Force Medical Service website accessed October 29 https://www.airforcemedicine.af.mil/About-Us/.

Air Force Medical Service History & Heritage. (2018). Creation of the Air Force Medical Service. Accessed on October 29 https://www.airforcemedicine.af.mil/AFMSHeritage/.

Anderson, P. (2006). *USAFE Airmen support Med Flag 2006 in Ghana*. U.S. Air Force News website. retrieved March 20, 2018 from http://www.af.mil/News/Article-Display/Article/129804/usafe-airmen-support-med-flag-2006-in-ghana/.

Babin, C. (2004). *Reservists provide humanitarian aid in Chad*. US Air Force News website. Retrieved on March 20, 2018 from http://www.af.mil/News/Article-Display/Article/136488/reservists-provide-humanitarian-aid-in-chad/.

Brewer, T. L., & Ryan-Wenger, N. A. (2009). Critical care air transport team (CCATT) nurses' deployed experience. *Military Medicine, 174*(5), 500–508.

Bridges, E., & Evers, K. (2009). Wartime critical care air transport. *Military Medicine, 174*(4), 370–375.

Cloutier, G (2005). *Medical group airmen return from humanitarian mission*. U.S. Air Force News website. retrieved on March 20, 2018 from http://www.af.mil/News/Article-Display/Article/132628/medical-group-airmen-return-from-humanitarian-mission/.

Currie, J., & Chipps, J. (2015). Mapping the field of military nursing research 1990-2013: A bibliometric review. *International Journal of Nursing Studies,* 52, 1607-1606 http://dxdoi.org/10.1016/j.ijnurstu.2015.06.008.

Friday, R. F. (2009). *Symposium unites nurses in the Asia-Pacific region*Official United States Air Force News Website. retrieved March 29, 2018 from http://www.osan.af.mil/News/Article/405782/symposium-unites-nurses-in-the-asia-pacific-region/.

Harman, D. R., Hooper, T. I., & Gackstetter, G. D. (2005). Aeromedical evacuations from operation iraqi freedom: A descriptive study. *Military Medicine, 170*, 521–527.

Jano, S. (2008). *Nursing leadership in Air Force theater hospitals: The chief nurse requirement [research report]*. Maxwell AFB, AL: Air War College.

Johanningman, J. A. (2007). Critical care aeromedical teams (Ccatt): Then, now and what's next. *The Journal of Trauma and Acute Care Surgery, 62*(6), S35, doi:10.0197/TA.0b013e31806540f3.

Rank, M. (2006). Department of the Air Force presentation to the committee on appropriations: Subcommittee on Defense United States Senate. Fiscal Year 2007 Medical Program, Statement of Major General Melissa A. Rank, Assistant Air Force Surgeon General for Nursing Services. https://www.airforcemedicine.af.mil/Portals/1/Documents/Congressional%20Testimony/Archives/AFD-070427-008.pdf.

Scannell-Desch, E., & Doherty, M. E. (2010). Experiences of U.S. Military Nurses in the Iraq and Afghanistan Wars, 2003-2009.

Signor, A. (2014). *10 Advances in medical technology from the global war on terror*. Task and Purpose website. retrieved on March 20, 2018 from https://taskandpurpose.com/10-medical-advancements-from-the-iraq-and-afghanistan-wars/.

Surgeon General Leadership (ND). (2018). Accessed on October 29 https://www.airforcemedicine.af.mil/About/Leaders/.

Thomas, G., & Rosser, E. (2017). Research findings from the memories of nursing oral history project. *British Journal of Nursing, 26*(4), 210–216.

Tomiyama, D. (2008). *New horizons brings medical care to 12,414 peruvians*. U.S. Air Force News website. retrieved on October 17, 2018 from https://www.4af.afrc.af.mil/News/Article-Display/Article/194695/new-horizons-brings-medical-care-to-12414-peruvians/.

Wielawski, I. M. (2011). Starting from scratch: Training nurses in Afghanistan. *The American Journal of Nursing, 11*(1), 62–63, doi:10.1097/01.NAJ.0000393063.60890.

Witte, G. (2018). *Afghanistan war 2001-2014*. Encyclopaedia Britannica. Last updated Feb 21, 2018, retrieved on March 20, 2018 from https://www.britannica.com/event/Afghanistan-War.