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TriService Nursing Research Program: A critical component to support military nursing science

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The TriService Nursing Research Program (TSNRP) is a Department of Defense program dedicated to supporting military nursing research and evidence-based practice (EBP) projects that contribute to advancing nursing practice and improving the quality of care service members receive. Specifically, TSNRP is committed to ensuring that all military service members, and their beneficiaries, receive evidence-based health care in all care settings—from military treatment facilities (i.e., hospitals and clinics located within military bases) to austere deployed operational environments worldwide. Leveraging scientific expertise developed over the last three decades, and driven by TSNRP's longstanding mission, strategic goals, and funding priorities, ensures that the most relevant high-quality projects receive funding. Investigator supported research examines the unique military health care needs of service members and beneficiaries and the health care system intended to meet those needs. However, TSNRP has accomplished more than simply funding research investigations and EBP projects. Over the last three decades, TSNRP has supported an expanding cadre of military nurse scholars, improved patient outcomes, optimized individual and unit operational readiness through support of over 500 funded projects ($160M), educational course offerings, research and EBP summits, and the support of six research interest groups (Figure 1). An essential lesson-learned by TSNRP over the last three decades is the development of military nurse scholars and their ability to develop programs of research requires more than solely financial support. Development of military nurse scholars requires a supportive scientific environment, infrastructure, training opportunities, support services, career planning, and scientific mentorship to conduct and disseminate research and EBP findings (Manson, 2009). TSNRP has served to provide some of these essential components to allow military nurses from all specialties and armed services to advance their scholarly capabilities with an ultimate goal to improve the health, well-being, and readiness of service members and their families.

The improvements in clinical care supported by TSNRP are exemplars of research investigations and EBP projects that are aligned with recommendations contained within the National Defense Strategy (NDS) and the recently released 2022 NDS fact sheet (Department of Defense DoD, 2018; DoD, 2022). The NDS provides the road map for the direction of military health care. Critical to the NDS, is the care for the war injured during

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Figure 1 – TriService Nursing Research Program timeline.

times of conflict and maintaining clinical proficiency during peacetime via practicing in medical treatment facilities. Also critical to the NDS are collaborations between Department of Defense health care personnel and civilian health care systems to clearly articulate and prepare for the current and future needs of our warfighters (Department of Defense DoD, 2018). Military nurses represent a critical component of health care personnel within the military health care system and collaborate extensively with retired military and civilian academic nursing colleagues. This collaboration provides a critical support mechanism to champion the scientific development, research, and EBP within military and civilian health care systems. TSNRP has been at the forefront of this scientific nursing collaboration. Together, through its research and EBP initiatives, along with scientific collaborators, TSNRP has the capabilities to positively affect the military health care system to provide seamless, affordable, patient-centered, accessible, quality care to improve patient outcomes. TSNRP is an essential program committed to supporting the needs of service members and their families. As TSNRP celebrates its 30th year anniversary, the purpose of this article is to briefly describe the value of TSNRP to service members, beneficiaries, military nursing practice, and the Department of Defense.

The inception for a TSNRP began in 1988, when a small group of military nurses from the Army, Navy, and Air Force began meeting informally at the Association of Military Surgeons of the United States annual meeting. In 1990, this group expanded to form the Federal Nursing Research Interest Group. In 1991, the members changed the name to TriService Nursing Research Group (TNRG) to better reflect the focus on military relevant research. This year also represented the first year the TNRG received congressionally directed funding to conduct financially supported military nursing research. In 1992, the members again changed the name to TSNRP. In 1995, Advisory members of TSNRP met with the Nurse Corps Chiefs and the National Center for Nursing Research (now the National Institute for Nursing Research) to discuss a coordinated strategy for nursing research and the potential development of a military Nursing Research Program similar to the National Institute of Nursing Research.

This meeting resulted in a request for a study to be conducted by the Institute of Medicine (now the National Academy of Science). The primary purpose of the IOM study was to examine the need for a military Nursing Research Program, while the secondary purpose was to provide expert recommendations on program administration. The resulting recommendations from the Institute of Medicine were critical to establish TSNRP infrastructure, rotation of the TSNRP Executive Director position between the Armed Services, TSNRP Executive Board of Directors composition (Armed Services Nurse Corp Chiefs), administrative processes, development of research award categories and research priorities, and identify gaps in military nursing science to ensure success of the program (Institute of Medicine IOM, 1996). By 1996, the Department of Defense Authorization Act approved TSNRP as part of the Defense Health Program, under the authority of the Secretary of Defense, administered by Armed Services Nurses, and housed at the Uniformed Services University of the Health Sciences.

Funding to support military nurses (active duty, reservist, national guard, and retired) conducting research has been instrumental to advance the scientific base of care provided to service members and beneficiaries. Each year since the inception of TSNRP, incremental steps have been made to expand financial support and professional development of military nurses aligned with an enduring mission: To facilitate

nursing research to optimize the care of service members and their beneficiaries.

The research and EBP conducted by military nurses funded through TSNRP includes studies focused on operational and peacetime missions as well as a broad portfolio of investigations which address TSNRP's funding priorities: Force health protection, nursing competencies and practice, leadership, ethics, and mentoring. Every award application submitted to TSNRP must align with at least one TSNRP priority. Scientific review panels, programmatic review panels, and the Nurse Corp Chiefs of the Armed Services also ensure every application is aligned with TSNRP priorities to fund the proposals most relevant to the military. Final application funding is determined by the Nurse Corp Chiefs of the Armed Services. In 2018, TSNRP included two award categories to support EBP awards (novice and mini EBP) and expand financial support to nurses conducting EBP projects.

The TSNRP research and EBP portfolio is broad and encompasses important areas of scientific and clinical inquiry: military nursing practice and competencies, operational readiness in deployed environments, service member performance, rehabilitation and recovery care, military service women readiness, and military family readiness. Although diverse in clinical specialty, methodologic approach, and focus, each area of research and EBP contributes to advancing a united mission to improve the care of service members and beneficiaries.

TSNRP supported research and EBP has also informed both military and civilian nursing practice. One exemplar is the longstanding resuscitative medicine program of research at the US Army Graduate Program of Nurse Anesthesia located at the Joint Base San Antonio, Texas. While the primary focus of this program of research is to optimize resuscitative trauma care for service members, study findings also inform civilian health care personnel. Investigations conducted by this team have demonstrated that the sternal intraosseous, tibial intraosseous, and humerus routes of epinephrine administration are all effective during resuscitation efforts in animal models, that lipid emulsion is effective for medication toxicity (specific local anesthetics and psychotropics), and that trauma-related products purchased by the Department of Defense are efficacious. (CPR assist devices and hemostatic agents) (Crane et al., 2012; Fulton et al., 2016a, 2016b; Hudson et al., 2013; Johnson et al., 2010; Jenkins et al., 2015; Johnson & Johnson, 2019; Long et al., 2018; Yauger et al., 2022a). A few of the tangible impact of these studies includes the widespread inclusion of lipid emulsion in most US emergency rooms to treat local anesthetic toxicity, the widespread adoption of CPR devices to improve CPR compression quality, and the use of hemostatic agents on the battlefield and in trauma care.

A second exemplar of how TSNRP supported research and EBP supports both military and civilian nursing practice is the extensive collaboration that has developed from the Military Women's Health Research Interest Group (MWHRIG). Prior to the establishment of the MWHRIG, TSNRP supported numerous individual investigators conducting research addressing military women's health. However, after the establishment of the MWHRIG in 2008, the collaborative efforts of this group conducted the largest scoping review of military women's research, conducted subsequent focused military women's health scoping reviews (sleep health, adjustment disorders, sexually transmitted infections, cervical cancer risk factors, unintended pregnancies, pregnancy, and breastfeeding), identified critical research gaps for service women, and have developed a military women's health research agenda to advance the care of military women's health (Bajjani-Gebara et al., 2021; Braun et al., 2021; Hopkins et al., 2021; Siaki et al., 2021; Trego et al., 2010; Wilson et al., 2021; Yablonsky et al., 2017).

The MWHRIG has served as an exemplar for nurse scientists who are also leaders, champions, mentors, and collaborators who have utilized research and EBP to advance the care of service women.

These are just two exemplars of TSNRP supported programs of research and EBP that demonstrate collaborative scientific advances that expand the cadre of military nursing scholars with tangible and cascading effects on the care of service member and beneficiaries.

Although TSNRP celebrates an amazing history, and is grateful to celebrate 30 years of supporting military nurses, TSNRP also looks forward to leading future efforts to foster innovative research, EBP, scientific collaboration, inform leaders and policy makers, and strengthen the capabilities of military nurses to develop operationally relevant research and EBP projects. Given the future projected complex multifaceted environmental threats, national and international natural disasters and public health crises, and restructuring of the military health care system, military nurses supported by TSNRP are optimally poised to make critical scientific and evidence-based contributions to inform clinical and leadership decisions within the military health care system. TSNRP looks forward to continuing its support to advance the science to guide the practice of military nurses.

Authors' Contribution

Heather C. King: Conceptualization and preparation of the original draft, writing team lead for development of article and team coordination.

Young J. Yauger: Conceptualization and writing, including reviewing and editing.

Laura Talbot: Conceptualization and writing, including reviewing and editing.

Data Sharing Statement

The data underlying this article is publicly available and provided as supplementary material.

Disclaimer

The views expressed are those of the authors and do not reflect the official policy or position of the TriService Nursing Research Program, USUHS, the Department of Defense, or the United States Government.

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