

TriService Nursing Research Program

2024 ANNUAL REPORT

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P Repertice Nurse

The TriService Nursing Research Program (TSNRP) enables the operational readiness, health, and care of warfighters by advancing military nurse scholars, nursing research, and evidence-based practice (EBP) in the military healthcare system.



Value to U.S. National Defense



TSNRP is congressionally authorized to fund scientific research by military nurses (S.R. 107-732) in support of American warfighters and their families on the battlefield and at home.

TSNRP is the only program to fund rigorous military nursing research and EBP projects that save lives, solve complex problems, and improve healthcare in collaboration with the Army, Navy, and Air Force. In addition to contributing to the national defense, findings of funded research ultimately benefit healthcare outcomes for all Americans.

As a partner to the Department of Defense, centered at the Uniformed Services University, TSNRP identifies the most innovative and collaborative research that promises significant, positive impact on the lives of military personnel and their families. Plus, the program produces education to advance military nurses' knowledge, networks, and capacity to provide evidencebased nursing care at home and on the front line. TSNRP solves challenges through military nursing research in such areas as:

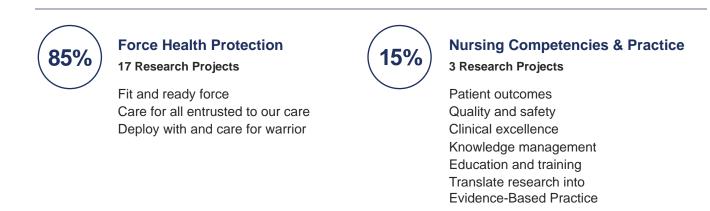
- Unique operational settings for healthcare delivery, including disasters and operational environments
- Mission readiness and performance of service members
- · Patterns of illness, stress, and injury
- Occupational and environmental hazards that affect health and readiness
- Cost-effective delivery of high-quality, evidence-based healthcare
- Innovation to improve medical outcomes
- Improvement of delivery systems and processes to enhance warfighters' ability to survive, thrive, and remain fit for duty

2024 Funding by Research Priorities

Aligned with U.S. Defense Strategy

Focused on the pursuit of excellence in military nursing, and aligned with the Surgeons General from each military service and the Defense Health Agency, the TSNRP Executive Board, which comprises the Nurse Corps Chiefs from the Army, Navy, and Air Force, approves research priorities.

Quantitative and qualitative studies are supported on operational and deployment health topics in the following strategic areas:





Congressional Interest Funding

Year	Total TSNRP Funding (M)	Proposals Received Annually	Proposals Funded Annually	Annual Funding Rate (%)	Cumulative Proposals Received	Cumulative Proposals Funded	Cumulative Funding Rate (%)
1992-2006 (total)	\$71.0	726	291	40%			
1992-2006 (average)	\$ 4.7	48.4	19.4	40%			

No Funding

Year	Total TSNRP Funding (M)	Proposals Received Annually	Proposals Funded Annually	Annual Funding Rate (%)	Cumulative Proposals Received	Cumulative Proposals Funded	Cumulative Funding Rate (%)
2007*	\$0	35	0	0	761	291	38%

DoD Budgeted Funds

Year	Total TSNRP Funding (M)	Proposals Received Annually	Proposals Funded Annually	Annual Funding Rate (%)	Cumulative Proposals Received	Cumulative Proposals Funded	Cumulative Funding Rate (%)
2008*	\$ 6.2	24	17	71%	785	308	39%
2009	\$ 6.2	34	16	47%	819	324	40%
2010	\$ 6.0	36	18	50%	855	342	40%
2011	\$ 6.2	42	16	38%	897	358	40%
2012	\$ 6.2	26	17	65%	923	375	41%
2013	\$ 6.0	27	11	41%	950	386	41%
2014	\$ 6.0	30	14	47%	980	400	41%
2015	\$ 6.7	37	29	78%	1017	429	42%
2016	\$ 6.8	27	16	59%	1044	445	43%
2017	\$ 6.8	24	13	54%	1068	458	43%
2018	\$ 7.0	27	16	59%	1095	474	43%
2019**	\$ 7.0	30	15	50%	1110	490	44%
2020	\$ 6.0	21	12	57%	1131	502	44%
2021	\$ 6.0	18	15	83%	1149	517	45%
2022***	\$ 6.0	10	6	60%	1159	523	45%
2023****	\$12.7	23	12	52%	1182	535	45%
2024****	\$12.6	15	10	66%	1197	545	45%

*Note: Some FY07 projects were funded with FY08 appropriations. **Note: Some FY19 projects were funded with FY20 TSNRP funding. ***Note: FY22 funding was disrupted and does not include FY22B Call, which was issued in FY23.

the funds were not received until Aug 2024, and high-priority (HP) awards were issued in FY24.

*****Note: In FY24, NDAA funding was not received until Aug 2024, and HP awards will be issued in FY25.

****Note: FY23 NDAA received a line item for an additional \$6.678M;

Note: This excludes mini EBP.

Farewell Letter from the Executive Director





COL Young J. Yauger PhD, CRNA, FAANA, AN, USA TSNRP Executive Director

As I prepare to transition from my role as executive director, it is with a deep sense of gratitude and pride that I reflect on the incredible journey we have shared. Over the years, we have further developed not just a successful program, but a community of passionate, innovative individuals committed to making a positive difference in nursing. I have been privileged to lead this exceptional team, and I am immensely proud of what we have achieved together.

When I first arrived, our vision was clear: to create value, foster growth, and leave a lasting impact on military nursing and the world around us. Thanks to your dedication, hard work, and unwavering commitment, that vision has been realized in ways I could never have imagined. We have faced challenges, embraced opportunities, and grown stronger with each step. Our success is a testament to the talent, resilience, and passion that each of you brings to this community.

As I move on to the next chapter, I am confident that the future of TSNRP is brighter than ever. We have laid a strong foundation, and with the next executive director in place and

the continued support of all our stakeholders, I am excited to see how you will carry the torch forward.

Thank you for the trust you've placed in me, for your collaboration, and for making this journey so rewarding. While I may be stepping away from my official role, I will always remain a champion of military nursing, TSNRP, and its future.

With deepest gratitude,

John

The TriService Nursing Research Program community continues to grow and evolve with a commitment to innovation, EBP, and support for research investigators and all military nurses who evolve professional nursing practice. In fiscal year 2024 (FY24), TSNRP achieved several milestones, from the inaugural Global Tactical Nursing Symposium to the expansion of mentorship programs and the launch of new initiatives that will shape the future of military nursing. Below are highlights of TSNRP activities and achievements in FY24.

1. Global Tactical Nursing Research Symposium

TSNRP hosted its first-ever **Global Tactical Nursing Research Symposium**, bringing together military nurses from the United States and allied nations, including Australia, Canada, South Korea, and the United Kingdom. This highly anticipated event allowed military nurses to share evidence-based research on critical topics, including:

- Expectant casualty care
- Prolonged casualty care
- Innovation for future battlefields

Presenters delivered groundbreaking research findings from the U.S. and allied countries, demonstrating a collective commitment to improving battlefield care through advanced nursing practices. The overwhelming success of this event led to the decision to host the symposium biennially, making it a key fixture in the advancement of global tactical nursing education.

2. EBP Training Tour

In a significant effort to increase awareness and application of evidence-based nursing practice across military nursing, the TSNRP executive director hosted a groundbreaking **EBP Training Tour.** The tour, which spanned Guam, Japan, and Korea, reached more than 130 nurses and nursing leaders, marking the first-ever TSNRP EBP training initiative for military nurses stationed outside the U.S.

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The tour featured high-profile participants, including **Dr. Kristen Atterbury**, chief nursing officer of the Defense Health Agency (DHA), and **Dr. Laura Brosch**, interim vice president of research at the Uniformed Services University (USU). The TSNRP executive director met with all local commands to share information and collaborate to support resources and education for military nurses.

The team conducted interactive workshops to enhance understanding of how EBP can improve military nursing care, with the following sessions tailored for each audience:

- Nursing Leadership: A half-day session focused on leadership's role in EBP.
- Military and Civilian Nurses: A full-day workshop on implementing research into practice.
- Healthcare Teams: An overview session for the broader healthcare team to increase overall awareness of the available resources.

This training tour not only raised the profile of TSNRP but also strengthened partnerships with nursing leadership and emphasized the importance of EBP in military healthcare.

3. Early Career Investigator Coaching Program

The TSNRP **Early Career Investigator Coaching Program (ECIC)** saw remarkable growth in FY24, doubling in size and paving the way for further expansion in FY25. The ECIC is a premier mentorship program that connects newly commissioned military nurses and nursing cadets with experienced nurse scientists to help them integrate nursing research into their military careers.

Key program features include:

- **Mentorship:** Early career nurses receive direct guidance and mentorship from seasoned military nurse researchers.
- Clinical Inquiry and Scholarship: Participants engage in clinical research and the development of EBP, enhancing their research skills.
- **Networking/Community Building:** Participants join research teams and become members of TSNRP Research Interest Groups, gaining exposure to a wider community of military nursing researchers.

This program is a cornerstone of TSNRP efforts to nurture the next generation of military nurse scientists.

4. Slava Ukraini: Battlefield & Disaster Nursing Pocket Guide

In FY24, TSNRP contributed to the ongoing support for Ukrainian medical personnel through the translation of the **Battlefield & Disaster Nursing Pocket Guide, 2nd Edition** into Ukrainian. This resource is designed for use by Ukrainian medics, nurses, and frontline warfighters, with the aim of providing valuable guidance on battlefield and disaster nursing in times of crisis.

5. Celebrating Nurses Week: Film Short - Origin & Legacy of Military Nurse Scientists

In honor of Nurses Week, TSNRP partnered with the National Museum of Health & Medicine (NMHM) to produce and release a film short titled *Origin & Legacy of Military Nurse Scientists*. The film explores the history and contributions of military nurse scientists, showcasing their profound impact on healthcare and military operations.

More than 800 people attended the online premiere, and the film continues to be viewed on both the NMHM and TSNRP websites, furthering the recognition of military nurse scientists and highlighting their invaluable contributions to the healthcare field.

Conclusion

In FY24, TSNRP demonstrated its leadership in advancing military nursing through global collaboration, expanded mentorship programs, and impactful educational initiatives. These efforts reflect the ongoing commitment to improving nursing care on the battlefield, supporting nursing leadership, fostering the growth of future nurse researchers, and expand EBP across military healthcare. As we look to FY25 and beyond, TSNRP will continue to be at the forefront of military nursing innovation, education, and EBP.

Financial Report



FY24 TSNRP Funding	\$13,000,000.00	
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USU Administrative Fees	\$	322,000.00

FY24 Additional Funds

Data to Support Decisions: MHS Genesis and a National Nursing Database	\$ 138,000.00

FY24 TSNRP Operational Expenditures*	
Travel for Courses	\$ 458,000.00
The Geneva Foundation Support Contract	\$ 2,378,268.00
Honoraria	\$ 9,435.50
Supplies & Materials	\$ 12,800.00
Total Operational Expenditures	\$ 2,858,503.50

Mini-EBP Awards	
Emergency Blood Release and Transfusion Training for Readiness	\$ 8,161.44
Wellness Center Impacts: Stress, Burnout, Sleep, and Pain in Active-Duty Service Members	\$ 9,105.84
A Nurse-Driven Protocol for Assessing Fluid Responsiveness in Critically III Adult Patients Using Non- Invasive Cardiac Output Monitoring	\$ 9,860.00
Utilizing Simulation to Impact Nursing Knowledge, Competence, and Operational Readiness Among New Military Nurse Graduates	\$ 9,642.38
Complementary and Alternative Medicine Pain Management	\$ 1.044.53
Empowering Nurses to Uphold and Enhance Their Clinical Knowledge, Skills, and Abilities Through Low-Fidelity Simulation - Site A	\$ 9,988.72
Empowering Nurses to Uphold and Enhance Their Clinical Knowledge, Skills, and Abilities Through Low-Fidelity Simulation - Site B	\$ 9.988.72
Empowering Nurses to Uphold and Enhance Their Clinical Knowledge, Skills, and Abilities Through Low-Fidelity Simulation - Site C	\$ 9,988.72

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FY24 TSNRP Funded Projects

New Awards	
A Delphi Study to Identify Military Unique Competencies for Combat Palliative and End-of-Life Care	\$ 345,992.00
Exploring Women's Health Issues in the U.S. Military Reserves Using the Social Ecological Model for Military Women's Health	\$ 499,917.00
Anticipating Future Combat Needs: Radiation Burn Training for Nurses	\$ 474,859.00
Severe Burn Nursing Care in Large-Scale Combat Operations: A Qualitative Study	\$ 335,475.00
Rehabilitative Interventions for Flight-Associated MSK Injury in Military Pilots/Crew: Systematic Review/ Meta-Analysis	\$ 499,999.00
Effects of Acupuncture for Perceived Stress and Health in Military Service Members	\$ 350,000.00
Spinal Delta and Kappa Opioid Receptor Heteromers as a Target for Pain Reduction	\$ 350,000.00
Effects of Temperature Extremes on Medications in an Austere Environment	\$ 227,554.00
Activity and Mobility Promotion (AMP) Program	\$ 250,000.00
USMC Drill Instructors' Eating and Making Weight Behaviors: A Mixed Methods Study	\$ 350,000.00
Development of a BioChip for Rapid Detection of Urinary Tract Infection	\$ 449,975.00
Health and Strength: Randomized Controlled Trial of Spiritually Integrated Treatment for Moral Injury and Moral Distress in Military Healthcare Providers	\$ 450,000.00
Nonpharmacologic Sleep Interventions for Military Personnel: A Systematic Review and Meta-Analysis	\$ 399,951.00
Effect of Intraosseous vs. Intravenous Lidocaine in a Cardiac, Hypovolemic Arrest Model	\$ 397,958.00
Infection Control in Tomorrow's Battlefield: Assessing the Feasibility and Effectiveness of Ultraviolet Disinfection of an Army Field Hospital during Prolonged Casualty Care	\$ 297,407.00
Enhancing Military Nursing Operational Skill Sets through the Combat Anesthesia Readiness and Training Course (CART-C)	\$ 197,349.00
A Randomized Controlled Trial Evaluating Response VD3 + K2 Supplementation through Genetics, Lifestyle, and the Gut Microbiome in Healthcare Personnel	\$ 395,257.00
Female Warfighter Urogenital Health: An Invisible Barrier to Promoting and Maintaining Comprehensive Integration, Operational and Warfare Capability, and Long-Term Participation in Military Service	\$ 396,326.00
Does Anesthetic Type Predict Morbidity for Traumatic Injury Patients in a Prolonged Field Care Environment?	\$ 499,010.00
Omega-3 Polyunsaturated Fatty Acids as a Possible Treatment of PTSD-like Fear Symptoms in Females Following Mild Traumatic Brain Injury	\$ 29,783.00
Omega-3 Polyunsaturated Fatty Acids and CCR5/CCL5 in Hippocampus Post-Mild Traumatic Brain Injuries: PTSD Memory Linking Implication	\$ 29,946.00
Total FY24 Project Funding	\$7,421,505.10
Remaining Balance (unspent)**	\$2,397,991.40

*TSNRP funding reflects NDAA FY24 funds of \$6,678,000.00 not received until July 2024. HP Awards will be issued in FY25.

**Unspent funding remains on TSNRP cooperative agreement for future program awards and program support.

Research Interest Groups

"Think Tanks" for Innovation



TSNRP Research Interest Groups (RIGs) initiate research, Evidence-Based Practice, and education projects that support operational readiness in their areas of expertise. Currently the TSNRP community offers six RIGs for military nurse scientists to network and collaborate: Anesthesia, Biobehavioral Care, Expeditionary Care, Health Systems/ Informatics, Military Family, Military Women's Health.



Biobehavioral Health RIG

Leaders:

CDR Shawna Grover PhD, ANP-BC, ACNS-BC, AOCNS, Leader

Lt Col Carla Wiese PhD, MSN, BSN, CCRN, Deputy

Key Contributors:

Dr. Joseph Leondike DNP, APRN, PMHNP, Lt Col(ret)

Lt Col Carla Wiese PhD, MSN, BSN, CCRN

Maj Michelle Binder DNP, PMHNP-BC

CDR Shawna Grover PhD, ANP-BC, ACNS-BC, AOCNS

Capt Felicia Katzovitz USAF, NC

Capt Lauren Maccoy USAF, NC Maj Talila Peggins

Fostering Mental Health as a Cultural Norm: Military Mental Health Stigma and Medication and Therapeutic Management

Military mental health stigma is linked to an individual's desire to handle problems on one's own and is strongly grounded in military culture. Interestingly, service members who report mental health concerns are most likely to perceive stigma related to mental health and frequently anticipate negative outcomes for seeking care. It is essential for both healthcare professionals and military leaders to understand this perceived stigma, medication management, and therapeutic strategies for mental health in the military to ensure timely and high-quality care.

This educational event discussed the perception of mental health stigma in the military, and described medication management and therapeutic management strategies to support mental health. Approximately 125 nurses attended this highly interactive educational event.



Military Family RIG

Leaders:

Lt Col Kelley Henson DNP, CPNP-AC, Leader LCDR MaryPat Tobola DNP, MSN, FNP-C, RN, Deputy

Key Contributors:

LCDR MaryPat Tobola DNP, MSN, FNP-C, RN Maj Julianne LeGierse, DNP Laura Talbot EdD, PhD, Col(ret) Leanne K. Knobloch, PhD Andrea Kalvesmaki, PhD Muskan Datta

Care of the Military Family Symposium

In a world focused on readiness, understanding the dynamic and unique characteristics of the military family is essential to supporting the warfighter. The Military Family RIG developed an educational symposium to discuss and describe the initial findings from their Military Family Scoping Review. Speakers identified best practices for the care of military families based on the latest evidence, and contracted current research with previously known knowledge.

Publications



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