CREATIVE FORCES CLINICAL RESEARCH:
A STRATEGIC FRAMEWORK AND
FIVE-YEAR AGENDA (2018 – 2022)

Prepared for Creative Forces: NEA Military Healing Arts Network

An Initiative of the National Endowment for the Arts
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ACRONYMS USED IN THIS DOCUMENT

AFTA  Americans for the Arts
DoD   Department of Defense
NEA   National Endowment for the Arts
NICOE  National Intrepid Center of Excellence
PTSD  Post-Traumatic Stress Disorder
RPP   Researcher-Practitioner Partnership
TBI   Traumatic Brain Injury
By Bill O’Brien and Sunil Iyengar

William Osler (1849-1919), whom many consider the father of modern medicine, famously advised his students to listen to their patients because “they’re telling you the diagnosis.” In much the same spirit, the National Endowment for the Arts’ initiative Creative Forces: NEA Military Healing Arts Network seeks to amplify clinicians’ ability to see, hear, and understand what the patient is trying to say. By experiencing creative arts therapies—art, music, dance/movement, and writing—as a valued component of team-oriented, integrated care, U.S. service members are better able to manage the complex and invisible wounds of recent wars.

This partnership got underway in 2012 when the National Endowment for the Arts teamed with the U.S. Department of Defense (DoD) to advance our understanding of the role the creative arts therapies could play to heal the signature wounds of war: traumatic brain injury, post-traumatic stress disorder (PTSD), and associated psychological conditions. The work began at Walter Reed National Military Medical Center, specifically within its National Intrepid Center of Excellence (NICoE). The following year, the program expanded to the NICoE Intrepid Spirit at Fort Belvoir in Virginia. Creative Forces now includes 11 active DoD and Veterans Affairs clinics coordinating these efforts across the nation.

The following pages mark a significant new chapter for the network. Armed with a strategic framework and five-year agenda for Creative Forces’ clinical research objectives, the network will promote a shared understanding of how, when, and why creative arts therapies improve health for patients coping with the physiological and psychological effects of their wartime experiences. The research arising from this framework and agenda will strengthen the network’s connective tissue, allowing the various clinical sites to apply this knowledge to improve and deliver consistent quality of care across the entire network.

Using this framework, the Creative Forces clinical team will develop a leadership and governance structure to guide its research program. The team will build organizational capacity for sharing research assets and resources across the sites, and for pursuing new research partnerships. The research agenda itself covers three priority research areas:

- **Targeted Deployment of Creative Arts Therapies Interventions:** The fundamental and applied aspects of creative arts therapies, such as the relationships among specific interventions/directives, disease states, and patient outcomes.

- **Creative Arts Therapies in Integrated Care and Co-treatment:** The effects of creative arts therapies in co-treatment with other creative arts therapy disciplines and other types of interventions, and the value of these therapies to integrated medicine.

- **Population Characteristics of Those Served by Creative Forces:** The measurement of patient characteristics and the relationships between patient characteristics, treatment variables, and outcomes.

Accompanying this document is an online inventory of research and scholarly manuscripts completed or being generated by the Creative Forces clinical team and its research collaborators. Of these articles, six already have been published.

One published case report, co-authored by the patient, explored the role of music therapy in the interdisciplinary care of a severely injured service member. The report is based on clinical documentation, self-reports by the
patient and his wife, and interviews with rehabilitation team members (Vaudreuil, Avila, et al., 2018). The paper found that music therapy helped improve range of motion, functional use of upper extremities, breath support, speech articulation, social integration, quality of life, and was highly valued by the patient, his family, and the integrated clinical team, both in stand-alone application and in co-treatment with other disciplines.

Another published study analyzed masks created by 370 service members during art therapy sessions and found that they represented themselves visually in a range of ways, including by focusing on the self and by depicting physical and psychological injuries as well as aspects of community and society (Walker, Kaimal, et al., 2017).

Figure 1. Framework of representations of self as seen in mask imagery. Walker, Kaimal, et al. 2017
In one of the most recent papers, the art therapy researchers conducted an observational study of associations between the themes created during mask-making and measures of depression, anxiety, and PTSD among active-duty military service members’ with traumatic brain injury (Kaimal, Walker, et al., 2018). The researchers found that service members who symbolized psychological injury were likely to report higher scores for PTSD and depression, while those who focused on military unit identity and who incorporated metaphors related to social connections were likely to report lower PTSD, depression, and anxiety scores. In other words, those who focused on themes related to sense of community and belonging to something greater than themselves were likely to report healthier clinical symptoms.

Although the findings are correlational and not causal, they raise compelling questions about how distinct patterns of inner strengths and struggles revealed by these artifacts can inform treatment plans for individual patients, and provide valuable lessons for patients, clinicians, and caregivers. It’s also intriguing to consider how the artwork expressing sense of self in relation to larger social contexts resonates both with the motivation to volunteer for military service and with the basic human drive to make and engage with art.

The impulse to create art runs deep. Across eons and cultures we have pursued fundamental questions about ourselves and our place in the perceived world through songs, paintings, plays, dance rituals, and stories. These questions produce greater urgency for persons undergoing rapid and severe transitions, as when attempting to adjust and make sense of the transformative experiences of war.

The challenge before us is to harness these ancient ways of learning and knowing to inform new approaches for evidence-based creative arts therapies. This research framework and agenda document will help to achieve this goal, which can then guide these treatments with a greater degree of precision. If these research efforts succeed, we ultimately will possess and promote new knowledge on how all therapies can be tailored to the specific needs of each patient.

But to provide more personalized and effective treatments for each of these patients, we first must become better listeners.

REFERENCES


ABSTRACT

Creative Forces: NEA Military Healing Arts Network—a partnership of the National Endowment for the Arts, the Departments of Defense and Veterans Affairs, and the state arts agencies—provides creative arts therapies for service members and veterans with traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), and associated psychological health issues. There are 11 Creative Forces sites at military and veterans’ medical facilities across the United States, as well as a telehealth program. Creative Forces places creative arts therapies into integrative care programs that address mind, body, and spirit; seek to improve resilience and well-being; and support patients in self-management of symptoms.

The initiative aims to promote research collaboration across the partnering federal agencies to advance knowledge, leverage subject-matter expertise, and promote utilization of best practices to benefit targeted patient populations. Clinical and research representatives supported by the National Endowment for the Arts are bound to the terms, processes and oversight of the Department of Defense, the Department of Veterans Affairs, and/or required federal-wide assurances.

As clinicians seek effective, evidence-based interventions for service members, veterans, and their families, research is emerging from Creative Forces on the impacts of creative arts therapies for service members and veterans coping with TBI and PTSD. In light of the clinical needs of this population and the promise of preliminary Creative Forces research, the partners are establishing a research program with an emphasis on understanding the biological and psychosocial benefits and the comparative cost-effectiveness of these therapies. This document, which describes the Creative Forces Research Strategic Framework and Five-Year Research Agenda, formalizes this commitment to research.

Three strategic objectives guide development of leadership, infrastructure, and capacity for research:

Strategic Objective #1: Develop Multi-tiered Leadership/Governance Structure
Strategic Objective #2: Build Organizational Capacity to Support and Drive Research
Strategic Objective #3: Expand Existing Research Projects/Processes

Under the guidance of a senior-level Clinical Research Advisor, the 11 sites and the telehealth program will form a Creative Forces Network. Two teams—one comprised of Creative Forces clinical and research personnel, one comprised of subject matter experts—will provide direction and support. Creative Forces will also cultivate a large, interactive cohort of interested stakeholders.

Three priority research areas reflecting the goals of the Creative Forces Research Strategic Framework direct the focus of research for the Five-Year Research Agenda:

Targeted Deployment of Creative Arts Therapies Interventions
Creative Arts Therapies in Integrated Care and Co-Treatment
Population Characteristics and Relationships to Creative Arts Therapies Implementation and Outcomes

With this initiative, Creative Forces is committed to conducting and disseminating rigorous biomedical and behavioral research in clinical settings. In an initial step to establish a theoretical foundation for its research activities, Creative Forces will develop conceptual frameworks for individual creative arts therapy disciplines and access existing state-of-the-art research tools and paradigms from each discipline’s field. Development of common metrics and tools, intentional selection of rigorous study designs including prospective multisite studies, and collaboration with other health/rehabilitation disciplines underscore the Creative Forces commitment to clinically relevant research on the effectiveness of these therapies for service members, veterans, and their families.
INTRODUCTION

CREATIVE FORCES NEA: MILITARY HEALING ARTS NETWORK

The National Endowment for the Arts (NEA), in partnership with the Department of Defense (DoD), established the Creative Forces: NEA Military Healing Arts Network in 2011. At the time of its launch, the partnership offered creative arts therapies to service members with traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), and associated psychological health issues at two military medical facilities in the Washington, DC, area: the National Intrepid Center of Excellence (NICOe) at the Walter Reed National Military Medical Center in Bethesda, Maryland and the Intrepid Spirit Fort Belvoir in Virginia. In 2016 and 2017, Creative Forces began expanding to include 11 clinical sites across the nation (10 military treatment facilities and one veterans’ hospital) and a telehealth program. In addition to integrating creative arts therapies into a comprehensive therapeutic treatment model, Creative Forces is developing community-based networks to provide arts opportunities for military and veteran family populations around the clinical site locations, bringing in new partners, the Department of Veterans Affairs and the state arts agencies.¹ These artist-led programs extend support for current and former Creative Forces patients and their families as they transition from treatment in a clinical setting to arts programming in their community.

The initiative aims to promote research collaboration across the partnering federal agencies to advance knowledge, leverage subject-matter expertise, and promote utilization of best practices to benefit targeted patient populations. Clinical and research representatives supported by the National Endowment for the Arts are bound to the terms, processes and oversight of the Department of Defense, the Department of Veterans Affairs, and/or required federal-wide assurances.

Creative arts therapies exist on a continuum of arts practices used to enhance health outcomes and well-being within healthcare. According to the National Organization for Arts in Health (2017, p. 7),

Creative arts therapies include the distinct regulated health professions of art therapy, dance/movement therapy, drama therapy, music therapy, poetry therapy, and psychodrama therapy. These board-certified professionals use their particular art form toward achieving clinical and therapeutic outcomes. Each of the professional disciplines possesses a definition of the profession, a legally defensible scope of practice, educational competencies, standards of practice, code of ethics, and evidence-based research. Creative arts therapists share the feature of encouraging creative expression through a specific art form. However, each profession stands alone as distinct.²

The creative arts therapies differ from expressive arts therapy, which uses a range of arts to facilitate expression and imagination, and from arts opportunities provided in medical settings, intended to enhance the experiences of patients and staff members. Creative arts therapists are distinguished by their discipline-specific training and certification, their clinical practices, and target outcomes. Appendix A provides definitions of individual creative arts therapies from the National Organization for Arts in Health.

¹ Research on Creative Forces’ community-based arts opportunities is occurring through a separate initiative.
Creative Forces integrates creative arts therapies, specifically art, music, drama, and dance/movement therapies and the practice of therapeutic writing, into interdisciplinary, intensive treatment and ongoing care program models that address mind, body, and spirit; seek to improve resilience and well-being; and support patients in developing self-management and regulation of symptoms. At the NICoE, active-duty service members participate in a four-week, interdisciplinary, intensive outpatient treatment program with 17 conventional and integrative treatment disciplines. The members of the clinical team reflect the interdisciplinary nature of the program: the team includes, for example, an internist, neurologist, psychiatrist, neuropsychologist, family therapist, wellness provider, physical therapist, speech language pathologist, social worker, audiologist, optometrist, creative arts therapists, and a nurse specialist. Patients participate in clinical sessions six to seven hours a day, Monday through Friday, over the four weeks.

As the work of Creative Forces deepens and expands, the partners are investing in research on the impacts of creative arts therapies for active-duty service members, military veterans, and military-connected families, with an emphasis on understanding the biological and psychosocial benefits and the comparative cost-effectiveness of these interventions. The need for research is paramount. Clinicians across our country are searching for effective interventions for service members, veterans, and their families, many of whom are navigating their way through significant and complex challenges. Within Creative Forces, creative arts therapies interventions provide physical and psychological rehabilitation—pathways for the wounded to heal and make meaning for their lives. Creative Forces is uniquely situated to study the effects of creative arts therapies within this population and to build empirical knowledge about these therapeutic interventions for PTSD and TBI and as part of an integrated care approach.

The Creative Forces’ commitment to this research is already on display: studies are ongoing and publications are emerging. This document, a strategic framework and research agenda, formalizes that commitment. In addition to describing the personnel, organizational, and project-oriented characteristics necessary for Creative Forces research, it outlines a five-year agenda with three priority areas for study. Three strategic objectives will guide the Research Strategic Framework for the first five years to develop the necessary leadership, infrastructure, and capacity to support and direct the research:

- **Strategic Objective #1: Develop Multi-tiered Leadership/Governance Structure**
- **Strategic Objective #2: Build Organizational Capacity to Support and Drive Research**
- **Strategic Objective #3: Expand Existing Research Projects/Processes**

**FOUNDATIONAL CREATIVE FORCES RESEARCH**

Over the past several years, Creative Forces personnel have developed research methodologies and tools, and have designed and implemented studies that serve, in part, as the impetus for this Research Strategic Framework and the Research Agenda. To date, Creative Forces research includes eight studies of music therapy interventions, eight of art therapy interventions, and one study of therapeutic/expressive writing (see [https://www.arts.gov/partnerships/creative-forces/research](https://www.arts.gov/partnerships/creative-forces/research) for the most current inventory of Creative Forces studies). Separately, a program development toolkit has been developed and will be implemented at Creative Forces sites, where appropriate. Creative Forces research has included individual and collective case studies, thematic analyses of participants’ art and music, evaluation of specific intervention models, comparisons of outcomes with analyses of clinical notes, surveys, and comparisons of methods of analysis.
In research from the art therapy component of the program, a thematic analysis of the masks created by 370 participants revealed different patterns of representations of the self, as well as themes related to physical and psychological injury, existential reflections, and other concerns. The findings gave insights into the experiences and struggles of active-duty service members dealing with PTSD, TBI, and co-occurring mood disorders, and which creative arts therapies can be used within integrative care. A case study from the same program followed a senior active-duty service member with TBI and PTSD through visual art therapy over the four-week program.

The study documented the integration of art therapy with other therapies and the potential for synergistic effects with multiple therapies. Additional research currently in progress includes a systematic examination of associations between visual self-expression and standardized clinical self-report measures.

Research from the music therapy component is in progress to document the experiences of 200 patients in group music therapy sessions, examining physical and psychological outcomes and interviewing multiple Creative Forces music therapists using this group protocol at different sites. A clinical practice paper awaits publication in *Music Therapy Perspectives* that outlines music therapy inclusion in intensive and ongoing treatment models. Thematic analyses of songs written by service members revealed a range of psychological themes, such as resilience, hope, anger, frustration, and love and continue to be examined in a formal paper. A case study provides an accounting of interdisciplinary work using music as a tool of empowerment for a service member with TBI and music therapy as a bridge between speech language pathology, occupational therapy, and physical therapy in his treatment process. Program evaluation reveals that family music therapy sessions with spouses and/or children showed improvements in communication, teamwork, and bonding.

In a study of therapeutic/expressive writing with service members at the NICoE (manuscript in development), service members reported more positive than negative, neutral, or mixed emotions during and after their therapeutic writing. In content analyses of the participants’ texts, the most prominent themes were the social and work categories.

This sample of Creative Forces research shows the potential for stand-alone, discipline-based studies for each creative arts therapy. It also shows the potential contributions of this research for understanding the impact of these interventions, both individually and in concert, with Creative Forces patients. In addition, these early studies suggest the value of creative arts therapies as part of an integrative model of care that seeks to treat the whole person. With each finding, new research questions arise and new possibilities for clinical application emerge.

### DEVELOPING A STRATEGIC FRAMEWORK AND AGENDA

This planning document grew from the collaborative efforts of the Creative Forces Core Planning Team. It is grounded in a review of relevant research, an analysis of current knowledge gaps, and the perspectives of clinicians, researchers, other field experts, and Core Planning Team members who generously participated in interviews and/or in two interactive research symposia. When aggregated, input from these sources yielded several observations and conclusions, which inform this Research Strategic Framework:

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There is clear interest within and beyond the Creative Forces Network in advancing research into specific creative arts therapies interventions, specifically for the populations served and as practices within integrative medicine.

While some commonalities exist across creative arts therapies, there are important and unique distinctions in clinical practices and theoretical explanations within and across disciplines (art, dance/movement, drama, and music therapies)—differences affecting research hypotheses and methodologies.

Creative Forces research practices within each creative arts therapy field are currently at different developmental stages.

Varied therapeutic interventions being leveraged across the Creative Forces Network may provide opportunities to target unique patient populations where specific interventions may have potential for strongest impact (e.g., treatments aligned with behavioral health for patients with mild traumatic brain injuries and treatments aligned with functional rehabilitation goals for patients with moderate to severe traumatic brain injuries).

There is relatively little research investigating the use of creative arts therapies in integrative medicine programs such as Creative Forces.

There is a need for more theory-driven research that both investigates and generates hypotheses and research questions from exemplary clinical programming.

For Creative Forces to launch an ambitious research program, a capacity to conduct rigorous, high-quality research must grow across the Network.

A process is needed to engage the broader research community in developing ideas and conducting research in pursuit of Creative Forces research priorities.

Careful, intentional selection of study designs and outcome measures is needed, aided by considerations of the hierarchy of evidence and progressive development of research.

The populations served by the Creative Forces are circumscribed: veterans, active-duty service members, and military-connected families dealing with post-traumatic stress disorder (PTSD), traumatic brain injury (TBI), and related psychological and medical issues. This factor presents unique opportunities as well as challenges.

Effective dissemination of data, metrics, and evidence is essential to the advancement of Creative Forces research.

There is a need for both research and evaluation, as well as a need to define both of these practices and their roles within Creative Forces.

Creative Forces has identified three research priorities for the initial five-year Research Agenda. Creative Forces research will investigate:

- **Targeted Deployment of Creative Arts Therapies Interventions** – the fundamental and applied aspects of creative arts therapies, such as the relationships between specific interventions/directives, disease states, and patient outcomes

- **Creative Arts Therapies in Integrated Care and Co-treatment** – the effects of creative arts therapies in co-treatment with other creative arts therapy disciplines and other types of interventions, and the value of these therapies to integrated medicine
• **Population Characteristics of those served by Creative Forces** – the measurement of patient characteristics and the relationships between patient characteristics, treatment variables, and outcomes

The purpose of this document is to communicate the strategic objectives and research priorities for the first five years of the Creative Forces research initiative. By highlighting critical needs, implementation strategies, and benchmarks, it will serve as a guide for the Core Planning Team and the broader Creative Forces Network as they build research capacity, conduct research, and assess their progress as a research entity. This is a “living document”—it will be reviewed and updated as the research agenda unfolds.

**CREATIVE FORCES RESEARCH STRATEGIC FRAMEWORK**

**VISION STATEMENT**

**Vision**

A core aim of the Creative Forces research initiative is to improve our understanding of the biological, psychological, behavioral, and economic impacts of creative arts therapies in integrative care settings for patients with TBI and PTS. This Network-wide, five-year research plan will explore new ways of measuring the impact of these therapies in integrative, team-centered care settings. Creative Forces promotes ongoing research innovation through a collaborative organizational framework and the development of partnerships.

The Research Strategic Framework acknowledges the complexities associated with fundamental differences among creative arts therapies in modality, implementation, theoretical bases, and existing research methodology. It is our aim to understand the impacts of these therapies within the populations served by Creative Forces and to advance the use of rigorous research methods to study their impacts, outcomes, and mechanisms.

Through researcher-practitioner partnerships and engaged scholarship, this initiative prioritizes research that generates clinically useful insights and substantive knowledge. Building on existing research, it leverages the unique investigative questions and context of Creative Forces clinical practice to generate new knowledge. The Research Strategic Framework identifies short- and long-term outcomes for developing effective research methodologies and an expanding body of evidence applicable to the use of creative arts therapies within and beyond Creative Forces. The Research Strategic Framework and its resultant portfolio will be dynamic and continuously updated in response to new findings and insights.

**STRATEGIC OBJECTIVE #1: DEVELOP MULTI-TIERED LEADERSHIP/GOVERNANCE**

The leadership/governance structure supporting Creative Forces’ Research Strategic Framework is designed to support and enhance research capacity within and across Creative Forces sites, set research priorities, develop an infrastructure reinforcing research excellence through all programs, build and strengthen relationships, emphasize the exchange of knowledge, and garner funding for sustainability.

The leadership/governance structure for the Creative Forces Research Strategic Framework consists of: a **Clinical Research Advisor**, a **Core Planning Team**, the **Creative Forces Network/Participating Members** comprised
of Creative Forces sites, and **Interested Stakeholders** (partners, target audiences, etc.). A standing **Technical Working Group** provides critical comments and knowledge resources from a trans-disciplinary perspective. Each of these roles require different levels of commitment.

- **Clinical Research Advisor:** In Year 1, Creative Forces will hire a full-time Clinical Research Advisor to plan and support the Research Strategic Framework. The Clinical Research Advisor will have military research experience and knowledge of creative arts therapies and will provide leadership across Creative Forces sites. The Clinical Research Advisor will serve as a member of both the Core Planning Team and the Technical Working Group; document the research produced from each site, as well as their research capacity and needs; monitor the progress of the studies and set benchmarks for success; facilitate quarterly meetings of the Core Planning Team and of the Technical Working Group; facilitate quarterly Creative Forces Network meetings; facilitate an annual meeting of the Core Planning Team and the Technical Working Group; support the development of Memoranda of Understanding (MOUs) and data-sharing agreements between partners; facilitate Institutional Review Board approval applications; review research and partnership proposals; facilitate technical assistance to sites; and identify potential funding sources. The Clinical Research Advisor role is thus pivotal, connecting the key entities, ensuring communication throughout the Network, and coordinating support for and execution of research.

- **Core Planning Team:** In Year 1, Creative Forces will establish a Core Planning Team to provide strategic leadership, set priorities, guide research development, and set the precepts for the Clinical Research Advisor. The Core Planning Team will comprise of 8 to 10 members (final number to be determined) and will include representatives from the Department of Defense (DoD), the National Endowment of the Arts (NEA), the National Intrepid Center of Excellence (NICoE), and at least one additional clinical site. The Core Planning Team will also include at least one researcher and a practitioner from each Creative Forces creative arts therapy discipline to provide expertise in their respective areas. The Core Planning Team will make decisions about the Creative Forces direction, set research priorities, prioritize funding, and review evaluations of research progress. Core Planning Team members will meet quarterly and commit to at least one year of participation. Functions and expectations for the Core Planning Team—as an entity and for individual members—will be developed at the beginning of Year 1. Appendix C provides a list of questions to guide development of the Core Planning Team (see “Roles and Responsibilities for Teams/Committees”).

- **Creative Forces Network/Participating Members:** The Creative Forces sites are the building blocks of the research initiative. Each Creative Forces site has a clinical lead, at least one creative arts therapist, and a research lead who collectively will form the basis of the site’s creative arts therapies research team. They will provide leadership and guidance at the site level. The site research lead will be the point of contact and will meet quarterly with the Clinical Research Advisor. Research teams may incorporate other practitioners and researchers associated with their sites, with a recommended minimum commitment of one year. In Year 1 of the Research Agenda, the Clinical Research Advisor will establish contact with the site-based research teams and begin building a Creative Forces Network. Members of the Network will meet remotely on a quarterly basis and in person at a convening during Year 1. Through participation in the Creative Forces Network, sites will have access to technical assistance, partnerships, and other resources to support their research.

- **Technical Working Group:** In Year 1, the Core Planning Team and the Clinical Research Advisor will establish a charter for a standing Technical Working Group and identify members. This interdisciplinary panel will draw expertise from researchers and statisticians in higher education, creative arts therapists, and DoD personnel. The group will provide unconflicted expert advice to the Creative Forces Clinical Research Advisor on planning and execution of projects, writing proposals, and drafting reports. Technical Working Group members will meet quarterly and commit to at least one year in the role.
• **Interested Stakeholders:** A final layer of membership for Creative Forces is for interested stakeholders outside of Creative Forces, such as researchers and practitioners focused on similar topics, populations, and treatment models, and health care economics. This national/international audience will be included in dissemination efforts and events.

• **Task-Specific Working Groups:** In Year 1 and beyond, Creative Forces will convene working groups to undertake specific research tasks described in Strategic Objective #3, related to developing conceptual frameworks for individual creative arts therapy disciplines and to the three research priority areas.

Within this structure, there may be additional roles determined by the Core Planning Team that emerge and/or are more transitory.

Figure 2 shows a graphic of the organizational and leadership structure of Creative Forces and the potential for cross-site research connections. This organizational structure is designed to draw on the strengths and expertise of different stakeholders as they create and apply evidence-based research to understand the underlying mechanisms of creative arts therapies, translate research into improved clinical outcomes and health care applications, and promote resiliency among military populations.

*Figure 2. Creative Forces Leadership/Governance Structure and Network*
STRATEGIC OBJECTIVE #2: DEVELOP ORGANIZATIONAL CAPACITY

The Strategic Research Framework builds on current assets and resources to create a stable, long-term structure for producing leading-edge research across the Creative Forces Network. This requires an understanding of current assets and resources as well as a plan to develop capacity, partnerships, and sustainable funding.

Assets and Resources

The Creative Forces Network’s existing assets and resources will support the development, management, and implementation of a five-year Research Strategic Framework and Research Agenda. To fully understand the assets and resources of the Creative Forces Network, the Creative Forces sites will be inventoried during Year 1 of the Research Agenda. Currently, known assets and resources include:

- **The NICoE:** The NICoE’s integrative medicine program provides cutting-edge evaluation, treatment planning, research, and education for service members and families dealing with TBI, PTSD, and co-morbid issues. The NICoE’s comprehensive creative arts therapies program is situated to provide leadership across Creative Forces sites around clinical practice and research. The NICoE has demonstrated a commitment to producing research and has an established treatment and rehabilitation program, imaging and medical devices/procedures to assess biomarkers, and systems in place to measure the long-term effectiveness of the programs. Between 2011 and 2016, a total of 102 journal articles have been published through the NICoE, with the first creative arts therapy-focused study published in 2016. Further, the NICoE has existing federal, academic, and private/nonprofit partnerships on which to build.

- **Clinical Sites:** In 2017 and 2018, Creative Forces is expanding its clinical network to include a total of at least 11 sites located within military or veterans treatment facilities across the nation. To become a Creative Forces site, the treatment facility enters into an agreement with the NEA, and a site-based clinical leader is identified to work with Creative Forces leadership and the site’s TBI and Psychological Health treatment teams. Each Creative Forces site has existing clinical and research infrastructure, as well as research and clinical practice partnerships. In addition to unique clinical contributions, they provide rich opportunities for expanding Creative Forces research, including multisite studies.

- **Different Creative Arts Therapies at Different Sites:** Creative arts therapies interventions differ across Creative Forces sites. This creates an opportunity to conduct controlled studies based on interventions and implementation protocols. The sites will be surveyed during Year 1 of the Research Agenda to gather information on implementation, current research efforts, and existing research capacity.

- **Data-sharing Infrastructure:** The NICoE has established an MOU and data-sharing agreement with Drexel University, which has resulted in collaborative research. An inventory of Creative Forces sites during Year 1 will determine the extent to which data-sharing and other research agreements exist throughout the Network. The NICoE and other sites with existing agreements can provide support for other sites as they develop research partnerships.

- **Evaluation Tools:** Through the collaborative partnership with Drexel University, researchers have developed an Evaluation Toolkit, which can be used across sites to collect common data.

- **IT Infrastructure:** The NICoE has begun developing an IT infrastructure, including the portal for self-assessments and a survey software tool. The Creative Forces sites will be inventoried in Year 1 to determine their current IT capacity and needs, with the intention of building site-level capacity and a Network system for common data collection.
Research Capacity-Building

To implement a cohesive research program, Creative Forces will: 1) inventory existing resources and capacity across the Creative Forces Network; 2) build internal capacity for research; 3) develop systems-level partnerships and collaborations to expand capacity and scope; 4) actively solicit extramural partners and collaborators to support and drive research; and 5) develop research-focused partnerships including specific researcher-practitioner partnerships (RPPs).

Inventory of existing resources and capacity across the Creative Forces Network

To understand the capacity and needs of the Creative Forces Network, the sites will be surveyed during Year 1. The survey should gather descriptions of current creative arts therapies programs and interventions; disease condition(s) and populations served by the site; names and positions of creative arts therapists and other clinical and research team members; lists of established research and academic partnerships; MOUs, data-sharing, and other existing research agreements; existing Institutional Review Board approvals and processes; research tools and methods in use; and lists of research publications. The survey will also inquire about current needs and interests for developing research capacity.

Internal Capacity to Support the Research Agenda

The Creative Forces Research Agenda requires operational, technical, and funding resources. The Clinical Research Advisor will identify the gaps between existing assets/resources and the organizational resources required to implement the agenda, and will develop and implement a plan to address those gaps. Extramural partnerships or other forms of outsourcing may address some of these needs. Examples of operational, technical, and funding needs for sites and/or their extramural partners are noted below.

Operations – Basic research infrastructure such as:
- Personnel (Clinical Research Advisor, creative arts therapists with research interests)
- Space
- Technology
- Measurement tools, protocols, and other research materials
- Communications structure

Technical Assistance – May include, if not provided by the site’s institution or outsourced through partnerships:
- Training/certification in human subjects research
- Support in developing applications for Institutional Review Board approval
- Support for developing grant proposals
- Examples of development of a research line of inquiry that progresses from initial idea to publication over several years

Funding – The Creative Forces Network is currently supported by a combination of funding streams, including Congressionally appropriated funds through the National Endowment for the Arts and other types
of support provided by the NEA, the Department of Defense, and the Department of Veterans Affairs. The Research Agenda requires funding that is secure and sustained; additional resources, including support from foundations and other federal agencies, may be considered to sustain and expand research capacity. Acquisition of funds will need to comply with policies and procedures established by the Creative Forces Cooperator (AFTA) and all federal partners.

**Systems-level Partnerships and Collaborations to Expand Capacity and Scope**

Strategic partnerships with other organizations and agencies at the systems level are based on mutual organizational benefits from shared commitment to creative, scholarly, and/or research activities—as distinct from specific, investigator-initiated research projects. Organizational/agency partnerships, both formal and informal, mutually leverage resources and assist in capacity development. Key developmental steps include:

- Identify specific needs and goals that will be addressed by systems-level partnerships
- Develop a framework for partnership and collaboration, including an approach to partnership agreements
- Strategically pursue federal interagency collaborations (e.g., Department of Defense, National Institute of Health, National Center for Complementary and Integrative Health) and other partnerships

Appendix C provides questions to guide development of Partnerships (see “Partnerships: Guiding Questions”).

**Solicitation of Extramural Partnerships and Collaborations to Support and Drive Research**

Partnerships and collaborations with other organizations and investigators are critical for establishing a robust research portfolio and for expanding the scope of Creative Forces research. Extramural partnerships with academic research communities will provide investigative and analytical skills, expertise in creative arts therapies, and outside perspectives. In turn, Creative Forces is in a position to inspire researchers and to generate discussions and ideas around the use of these therapies within integrative medicine and with military-connected individuals. Creative Forces will develop mechanisms for crowd-sourcing and/or soliciting extramural partnerships to build research capacity and to pursue the three identified research priorities. Initial solicitations for research should align with the Creative Forces research priorities and focus on the parameters of the creative arts therapies.

To that end, Creative Forces will develop a solicitation and award process to stimulate and support extramural partnerships. At a minimum, the process will determine:

- Purpose and intended outcomes of extramural awards
- Creative Forces personnel responsible for managing the award
- Applicant eligibility
- Amount of available funding
- Duration of awards/award cycle
- Reporting/accountability mechanisms
- Extent of technical assistance available to recipients
- Proposal evaluation process
**Researcher-Practitioner Partnerships for Specific Research**

Underlying the systems-level and extramural partnerships and collaborations is a research approach driven by researchers working in close collaboration with creative arts therapists. Researcher-practitioner partnerships (RPP) are long-term collaborations between practitioners and researchers that focus on problems of practice and on mutual research goals. Through this research approach, clinicians and researchers share expertise and provide access to resources. In this way, RPPs are key for research capacity building.

For creative arts therapists, researchers provide:

- Methodology for rigorous research appropriate to current status of the research, from hypothesis development to selection of research designs
- Methodology for developing and identifying reliable and valid measures
- Access to a research community
- Access to peer-reviewed publications for dissemination

For researchers, creative arts therapists and their practice sites provide:

- Methodology for implementing creative arts therapies
- Theoretical explanations for why creative arts therapies work: the relationship between specific interventions/directives and their intended outcomes
- Access to patient populations and clinical settings
- Access to resources in integrated medicine, including medical practices and medical technology

**STRATEGIC OBJECTIVE #3: GENERATE RESEARCH PROJECTS/PROCESSES**

This Research Strategic Framework builds on existing Creative Forces research. To meet our five-year goals, Creative Forces will simultaneously invest in the expansion of research and in research quality and rigor.

**Developing Creative Arts Therapies Conceptual Frameworks**

There are many layers of complexity surrounding discipline-specific interventions and research. The creative arts therapies differ on multiple dimensions: modality, clinical implementation, and development as disciplines. Further, within each discipline, a variety of theoretical perspectives are currently used to drive clinical practices and explain treatment outcomes. For an effective and rigorous research program within and across creative arts therapies, there is a need for **theory-driven research guided by compelling research questions and hypotheses**.

To that end, a conceptual framework will be developed for each Creative Forces creative arts therapy. The conceptual framework will identify the intended outcomes for that discipline and explains how the intervention achieves those outcomes. This is essential groundwork for theory-driven research. Steps toward developing a conceptual framework are:

1. Establish a Task-Specific Working Group for each creative arts therapy, under the management of the Clinical Research Advisor, with an identified leader and ideally comprised of Creative Forces therapists and field experts (researchers, practitioners).
3. Develop a reporting cycle and a report template for Working Groups to document their work.
4. Convene Working Groups separately to review theoretical works and current research in their discipline.
5. In Working Groups, draft a conceptual framework for each creative arts therapy and create an inventory of current, vetted research protocols and measures in the field.
6. Circulate each conceptual framework to obtain feedback from field experts (practitioners and researchers) and other Creative Forces creative arts therapists.
7. Disseminate the conceptual frameworks within the Creative Forces Network, explaining how they can be used to provide direction for research questions and specific hypotheses, and how they support alignment of research across the Network.

This work may be facilitated by extramural partners. Creative Forces will also explore the potential utility for a program-level theory of change and an associated logic model centering on creative arts therapies within integrative medicine.

**Selecting Research Study Designs**

The Creative Forces clinical research program will develop progressively over the next five years, as the organization builds research capacity and pursues a structured research program. Selection of study designs will take into account the stage of research development. Figure 3 applies the scientific method to clinical research.\(^5\) The progression from observation to experimental testing can apply to development of a single study or to a line of inquiry based on multiple studies positioned at the different stages, as indicated by the examples below each stage. Rigorous observational and case studies serve a vital role in the early stages of a research program and play a role in Creative Forces clinical research.

![Figure 3. Scientific stages of research](image)

**Figure 3. Scientific stages of research**

The Creative Forces Research Strategic Framework further recognizes the importance and value of all types of research, from case studies to randomized clinical trials and meta-analyses. It also acknowledges the benefit of using both qualitative and quantitative research methods to understand complex phenomena. Mixed-methods research using data generated by qualitative and quantitative methods permits cross-verification of findings, and qualitative data can provide nuanced insights of the quantitative results.

Whereas all studies need to evaluate the subjective experiences of study participants and researchers, especially given the qualitative nature of experiences related to the creative arts therapies, it is ultimately the goal of Creative Forces clinical research to focus on completion of prospective, multisite research that is conducted in collaboration with other health/rehabilitation disciplines and which use similar outcome measures. Through such collaborations, it will be possible to conduct meta-analyses that evaluate the clinical effectiveness of these therapies in terms of health outcomes and functioning as it pertains to military personnel.

Selection of study designs will also take into account hierarchies of evidence, which rank designs based on the level of evidence produced by a given research design. While hierarchies vary depending on field and application, Figure 4 is a representative ranking, with levels of rigor increasing from the bottom to the top of the pyramid. The level of study design has implications for interpretation and generalization of results: those higher in the ranking are generally considered to produce more conclusive evidence.

Figure 4. Hierarchies of evidence for research study designs

However, there are three important mitigating factors. The first is the quality of the study. A poorly conducted study using a design of higher rank has limited value, whereas a rigorous case study may yield significant contributions. The second is the appropriateness of the design to the investigation. The design must align with the hypothesis and be appropriate to the patient population and the clinical intervention. Third, there

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are significant challenges to using some study designs with vulnerable patient populations. For example, true randomization, control groups, and even wait-list controls may not be feasible or ethical.\(^7\)

The five-year Research Agenda anticipates initial study designs will focus on foundational evidence developed through observational and various types of case studies. Over time, with the development of organizational research capacity, conceptual frameworks, and foundational evidence, study designs with higher evidence levels will be introduced. For example, a line of inquiry may progress through the following study designs, with multiple studies at each phase:

- Individual case study
- Multisite case study
- Cohort study
- Controlled study without randomization
- Randomized controlled trial

The progression of study design is reflected in the benchmarks for the Research Agenda 2018-2022. Creative Forces will also monitor developments in best practices for research in clinical settings and the arts, outside Creative Forces, for potential incorporation into the program.

In the aggregate, Creative Forces clinical research will focus on the manner by which creative arts therapies interventions lead to the immediate resolution of specific impairments across multiple dimensions, including, but not limited to, neurological, physiological, physical, functional, cognitive, social/relational, occupational, psychological/behavioral, and spiritual difficulties. In addition, it is essential that the research demonstrates the utility of creative arts therapies in improving the functional outcomes of service members (e.g., readiness for duty, ability to work, live independently, complete educational programs), as well as their benefit for economic and military outcomes (e.g., reduction in service utilization and costs, sustainability of therapeutic benefits through continued lifelong use of creative arts therapies, etc.). In building the body of Creative Forces research, it will be essential to develop common outcome measures that reflect improvements in the health and functioning of service members.

Selecting and Developing Common Metrics/Tools

To implement a research program, Creative Forces requires common metrics and tools to:

- Document implementation of/patient exposure to an intervention
- Document patient participation/engagement in an intervention
- Measure outcomes/change associated with an intervention

The Creative Arts Therapies Working Groups will develop an inventory of current, vetted research protocols and measures based on a conceptual framework. Selection of research tools and measures must align with the target outcomes identified in the conceptual frameworks and with research hypotheses. Effective measures/tools for rigorous, high quality research must meet psychometric standards for validity and reliability. For the purpose of utility, they must be relevant, and they must be manageable for both the patient and the researcher.

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\(^7\) It is worth noting here that arts-based therapies, programs, and interventions historically have posed problems to research and evaluation methods using experimental study designs. Failing the development of such protocols, however, it will be incumbent upon the Creative Forces teams to adapt or innovate other metrics or models that can gain suitably compelling evidence of creative arts therapies benefits in an integrative care setting.
Standardization of an instrument and its implementation are essential, particularly for multisite studies. New instruments must be tested to ensure they produce consistent and high-quality data.

The whole person/whole systems treatment approach of integrated medicine presents a range of domains for measuring patient outcomes and change including:

- Neurological
- Physiological
- Physical
- Functional/Activities of Daily Living
- Cognitive
- Social/Relational
- Occupational
- Psychological/Behavioral
- Spiritual

Sources of quantitative and qualitative data for research in integrative medicine and creative arts therapies interventions include but are not limited to:

- Patient records
- Intervention records
- Clinical notes
- Behavioral observations
- Biomarkers
- Cognitive assessments
- Psychological assessments
- Physical assessments
- Analysis of patient work
- Interviews or surveys with patients
- Interviews or surveys with caregivers, and others
- Program and treatment financial documents

Many tools with known psychometric properties already exist for these domains. For example, the NIH Toolbox\(^8\) provides measures of cognition, emotion, motor, and sensation. Biomarkers have been identified for a variety of human systems and serve as indices of physical states. Most creative arts therapy fields have developed research protocols and measures, which may benefit Creative Forces. However, according to research literature and field experts, many research tools associated with creative arts therapies have not been vetted or standardized. These tools may require further development and testing prior to use. Network access to a repository for common research tools will enable collaboration and comparison of results. Distribution of shared tools should

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\(^{8}\) [http://www.healthmeasures.net/explore-measurement-systems/nih-toolbox/intro-to-nih-toolbox](http://www.healthmeasures.net/explore-measurement-systems/nih-toolbox/intro-to-nih-toolbox)
include training (e.g., materials, workshops), information about psychometric properties, and calibration of data collection/interpretation.

Accessing Secondary Data

To conduct studies of interventions and their outcomes and to accurately interpret research results, it is essential to gather implementation data on therapeutic interventions. These data allow researchers to determine the degree to which an intervention is implemented as intended. Without implementation fidelity, study results cannot be reliably associated with the intervention. Additional secondary data reflecting a patient’s involvement in other integrative medicine treatments will be helpful in understanding outcomes associated with creative arts therapies. For research on Creative Forces interventions, examples of critical implementation data include the following:

- Implementation data
  - Creative arts therapists’ approach/perspective
  - Number of sessions
  - Length of sessions
  - Frequency of sessions
  - Interventions/directives/exercises utilized within sessions
  - Individual versus group sessions or individual and group sessions
  - Stand-alone treatment, concurrent treatment, or co-treatment sessions
  - In-person, telehealth, or independent (e.g. at home) activities

- Complementary implementation data from the patient’s integrative medicine program
  - Type of programming (e.g., inpatient, intensive outpatient, long-term, brief intervention)
  - Length of time in integrative medicine program
  - Number of hours in treatment program
  - Number of other providers
  - Number and types of other treatments

RESEARCH AGENDA 2018-2022

PRIORITY RESEARCH AREAS

The Creative Forces team has identified three priority research areas for the next five years. These areas reflect the goals of the Creative Forces Research Strategic Framework and, in combination, lead to an understanding of the patients served, the impact of creative arts therapies as interventions, and the role and impact of these therapies in the complex setting of integrated medicine. The Research Agenda emphasizes clinical investigations and will be driven—at least initially— by clinical questions from the Creative Forces Network, although input from extramural researchers presumably will shape the agenda as well.
Targeted Deployment of Creative Arts Therapies Interventions

Creative Forces research will focus on the fundamental and applied aspects of creative arts therapies interventions. Foundational work is needed to develop conceptual frameworks for each creative arts therapy, which will guide research hypotheses and predictions of outcomes. Consistent processes for documenting and quantifying therapeutic interventions will contribute to research in this area. Quantifiable outcomes are also essential and include measures of disease, wellness, neurological, physiological, and functional outcomes. Research in this area will also study the use of different types of outcomes measures, such as self-report, clinical observation, and biomarkers.

Investigations of deployment of creative arts therapies will examine intervention variables, including optimal dosing (frequency, duration), social versus solo therapies, and telehealth versus onsite interventions. They will also investigate whether specific therapeutic interventions are more effective for certain patient goals or for specific disease states and injuries, as well as the durability of the treatment outcomes following these interventions.

Example research questions:

• How can creative arts therapies interventions be quantified so the variables of dose and duration can be measured?
• How are outcomes related to key treatment variables, such as length of session, duration of treatment, individual versus group therapies, and co-treatments with other disciplines?
• How does the timing of therapeutic interventions, relative to when the trauma, injury, or military discharge occurred, impact outcomes?
• Based on the theoretical foundations for individual creative arts therapies, what hypotheses can be advanced about physiological or neurological mechanisms associated with treatment outcomes, and what are the relevant biomarkers?
• What are potential common mechanisms of change (e.g. stress reduction, client-therapist relationship, memory consolidation) across creative arts therapies and how can they be tested?

Creative Arts Therapies in Integrated Care and Co-treatment

Creative Forces provides creative arts therapies as part of an integrated care model, and this presents opportunities to understand implementation and outcomes regarding these therapies within integrated medical and rehabilitation services. Priorities within this area include studies of the effects of specific creative arts therapies in co-treatment with other creative arts therapies, in co-treatment with other therapeutic disciplines, and in simultaneous and sequenced delivery of multiple creative arts therapies interventions. Also of interest are the value of these therapies to integrated medicine teams and the potential synergistic effects for patients around communication, therapeutic relationships, engagement and focus, self-awareness, meaning-making, and reinforcement of treatment goals.

Example research questions:

• What are the benefits of creative arts therapies to an integrative care model?
• What are the relationships between creative arts therapies and other treatments within integrative care?
• To what extent and in what ways can engagement with creative arts therapies reduce or eliminate reliance on pharmacotherapy?
Population Characteristics and Relationships to Creative Arts Therapies Implementation and Outcomes

Creative Forces creative arts therapists share a common goal of helping military personnel and veterans return to their homes, their missions, and their families whole, mentally fit, and emotionally prepared for what they encounter. However, creative arts therapies vary on numerous dimensions, as do Creative Forces patients. Research on the relationships between patient characteristics, treatment variables, and outcomes will help clinicians and researchers determine who responds best to which types of therapeutic interventions. This knowledge will improve creative arts therapies implementation and the functional outcomes for service members.

This research area also investigates referral and treatment pathways for patients: specifically, how and why patients are referred to Creative Forces, including clinic-to-clinic pathways, community-to-clinic pathways, and the prioritization of referrals. It also explores self-efficacy—the role of the patient in the guiding his or her therapy and the active role of the patient in research.

Research efforts will identify and develop effective measurements for key patient characteristics, such as personal, social, and situational demographic variables. Medical status, including the neurophysiological, physical, and psychological injuries of patients, will be consistently documented for study. Other key individual variables include history of injury, military experience, and experience with the arts.

Example research questions:

- Based on theory, research, and our observations, what are the relevant patient variables for Creative Forces research?
- How do creative arts therapies cultivate self-efficacy? How can self-efficacy play a role in therapy and sustainment of gains achieved in therapy? In research?
- What constitutes an effective referral process and pathway?

Activating the Research Priorities

To ensure a coherent research program or line of inquiry in these three areas, Creative Forces will develop initial questions to guide the research. Research questions, by their nature, evolve over time in response to findings and to needs that emerge in the systems of care. Periodic evaluation of the research program will also inform ongoing development of research questions. Steps include:

1. Develop a Task-Specific Working Group for each priority research area, with an identified leader and ideally comprised of Creative Forces leaders and/or Network members. Determine role and longevity of groups. The Core Planning Team may instead serve as the Working Group(s).
2. Develop a report template and reporting cycle for the Working Group to document their work.
3. Working Groups convene to assess relevant Creative Forces research to date.
4. Working Groups develop and prioritize research questions, identify the types of data and studies needed, identify lines of inquiry with a five-year trajectory, and recommend initial studies.
5. Disseminate research questions and lines of inquiry to relevant stakeholders.
FIVE-YEAR PLAN

Significant planning for the Five-Year Plan is pending and will occur upon hiring the Clinical Research Advisor and establishing the Core Planning Team. The following annual benchmarks, organized by strategic objectives, provide a structure and starting point.

YEAR 1 (2018): BUILDING ON EXISTING CREATIVE FORCES RESEARCH AND DEVELOPING FOUNDATIONS

Strategic Objective #1: Leadership/Governance Year 1 Benchmarks

**Clinical Research Advisor** – Roles and responsibilities defined, administrative and operational support established (human resources, funding, work space, supervision): *position filled no earlier than June 2018*

**Core Planning Team** – Purpose of team determined, charter established, members identified, members’ roles and responsibilities defined, operating principles established, relationships with other entities defined and established, quarterly meeting schedule established and meetings underway: *members identified by May 2018, preliminary quarterly meeting and charter established in June/July 2018, first formal meeting in August 2018, joint meeting with Technical Working Group in September/October 2018*

**Technical Working Group** – Purpose of team determined, charter established, members identified, members’ roles and responsibilities defined, operating principles established, relationships with other entities defined and established, quarterly meeting schedule established and meetings underway: *Core Planning Team and Clinical Research Advisor begin development of Technical Working Group in July 2018, Technical Working Group and charter in place by August/September 2018, joint meeting with Core Planning Team in September/October 2018*

**Creative Forces Network (sites and telehealth)** – Clear understanding of how Network is structured and functions, communication process developed, quarterly meeting schedule established and meetings underway, in-person convening of Network sites executed: *communications mechanism and formal informational contact of Network sites by June 2018, first remote meeting during summer 2018, in-person meeting during fall 2018*

**Interested Stakeholders** – Interested stakeholders identified, outreach strategy developed and executed: *as an early task of Technical Working Group, outreach strategy in place and executed by October 2018*

**Task-Specific Working Groups** – Working groups formed around specific tasks (e.g., conceptual frameworks for creative arts therapies), purpose defined, charters established, members identified, members’ roles and responsibilities defined, operating principles established, relationships with Core Planning Team and Network established, ongoing meeting schedule established, ongoing meetings underway, decisions made to continue or discontinue the Task-Specific Working Groups based on need: *timeline benchmarks addressed in Strategic Objective #3*

**Communications/Dissemination Strategies** – Communication strategies developed in consultation with Core Planning Team, Technical Working Group, and Network, with information disseminated through convening(s), briefing documents, or other means to raise awareness of the Research Agenda, both within and beyond the Network: *communication/dissemination goals and implementation plan in place by December 2018, full plan implementation beginning January 2019*
**Progress Monitoring** – Annual benchmarks and measures identified, plan and timeline in place and resourced, Year 1 progress monitoring and review completed, Year 2 plan in place, Research Strategic Framework document reviewed and updated: *annual benchmarks and overall process in place by August 2018, Year 1 (6 month report) progress monitoring report and recommendations for Year 2 completed and submitted by May 2018*

**Strategic Objective #2: Organizational Capacity Year 1 Benchmarks**

**Assets and Resources/Internal Capacity** – Inventory of assets and resources of the Creative Forces Network conducted (e.g., site team members, creative arts therapies provided, existing research agreements and IRB approvals, existing tools, research and training needs), needs identified: *inventory completed during July 2018*

**Systems-level Partners** – Needs and goals for organizational partnerships identified, types of relationships defined, target partners identified (*recommend establishing the Core Planning Team, Clinical Research Advisor, and Technical Working Group prior to external partnerships): goals, target partners, and implementation in place by December 2018, full plan implementation beginning January 2019

**Solicitation of Extramural Partnerships** – Mechanism for soliciting extramural partnerships (systems and RPPs) developed, award process developed, funding in place, timeline/cycle for awards in place: *full implementation plan in place by October 2018 in advance of developing partnership plans (Year 2)*

**Funding** – Funding needs determined, sources and attendant requirements identified: *timeline dependent on funding need and funding source - TBD*

**Strategic Objective #3: Research/Research Process Year 1 Benchmarks**

**Creative Arts Therapies Conceptual Frameworks** – Task-Specific Working Groups Scope of Work developed, groups convened, charters developed, conceptual frameworks developed and vetted for each creative arts therapy, inventory of research protocols and instruments for each creative arts therapy, Working Group reports and research tools/protocols submitted, conceptual frameworks disseminated, decision to maintain or close Working Groups is made: *Scope of Work developed for Task-Specific Working Groups in July 2018, groups convene for six months starting in August 2018*

**Priority Research Areas** – Task-Specific Working Groups Scope of Work developed, groups convened, charters developed research questions and five-year line of inquiry developed and vetted for each area, Working Group reports submitted, research questions and five-year line of inquiry disseminated; decision to maintain or close Working Groups is made: *Scope of Work for Task-Specific Working Groups developed by July 2018, groups convene upon formation of the Creative Forces Network starting in Fall 2018*

**Common Tools and Measures** – Tools used at sites documented, state-of-the art tools identified by Task-Specific Creative Arts Therapies Working Groups through the development of conceptual frameworks, gaps in tools and measures determined, essential characteristics and validation process for tools identified, tool-sharing mechanisms established: *tool vetting process and tool-sharing mechanism in place by July 2018, tools gathered from Network sites and other sources by July 2018, from Working Groups by December 2018, vetted and shared by February 2019*
YEAR 2 (2019): DEVELOPING PARTNERSHIPS AND ENGAGING IN RESEARCH

Strategic Objective #1: Leadership/Governance Year 2 Benchmarks

Clinical Research Advisor – Continued role and responsibilities

Core Planning Team – Continued to meet on ongoing basis, developed relationships with other entities, ongoing meeting schedule established, reviewed Year 1 progress monitoring report and used feedback for program development: Year 1 monitoring report reviewed in May 2019, annual joint meeting with Technical Working Group in May 2019

Technical Working Group – Continued to meet on ongoing basis, developed relationships with other entities, ongoing meeting schedule established: annual joint meeting with Core Planning Team in May 2019.

Creative Forces Network (sites and telehealth) – Network sites continued to meet on ongoing basis, Network collaborations/site based research underway

Interested Stakeholders – Interested stakeholders identified and cultivated (continued)

Task-Specific Working Groups (temporary) – Task-Specific Working groups continued as needed

Communications/Dissemination Strategies – Information disseminated through convening(s), briefing documents, or other means to raise awareness of Creative Forces research, both within and beyond the Network

Progress Monitoring – Annual progress monitoring and review executed, Research Strategic Framework document reviewed and updated: completed by April 2020

Strategic Objective #2: Organizational Capacity Year 2 Benchmarks

Assets and Resources/Internal Capacity – Capacity-building activities targeted at needs and gaps identified in Year 1

Solicitation of Extramural Partnerships – Systems partnerships underway, research award/contract process launched

Systems-level Partners – Key organizational partnerships established, agreements in place

Researcher-Practitioner Partnerships – RPPs established and/or under development, agreements in place

Funding – Funding resources identified and procured for research projects

Strategic Objective #3: Research Products/Processes Year 2 Benchmarks

Creative Arts Therapies Conceptual Frameworks – Evidence of use in guiding research questions and hypotheses for each creative arts therapy: goals and benchmarks TBD by Clinical Research Advisor with input from Task-Specific Working Groups and Core Planning Team

Priority Research Areas – In each area, evidence of progress within the identified lines of inquiry: goals and benchmarks TBD by Clinical Research Advisor with input from Task-Specific Working Groups and Core Planning Team

Common Tools and Measures – Ongoing vetting and sharing of tools
YEAR 3 (2020): CONTINUING RESEARCH AND ENGAGING PARTNERSHIPS

Strategic Objective #1: Leadership/Governance Year 3 Benchmarks

Clinical Research Advisor – Continued role and responsibilities

Core Planning Team – Continued to meet on ongoing basis, reviewed Year 2 progress monitoring report and used feedback for program development: *review of Year 2 monitoring report completed in May 2020, annual joint meeting with Technical Working Group in May 2020*

Technical Working Group – Continued to meet on ongoing basis: *annual joint meeting with Core Planning Team in May 2020*

Creative Forces Network *(sites and telehealth)* – Quarterly meetings underway, cross-site information sharing and multisite studies underway

Interested Stakeholders – Interested stakeholders identified, outreach strategy developed and executed

Task-Specific Working Groups – Working groups continued as needed

Communications/Dissemination Strategies – Information disseminated through convening(s), briefing documents, or other means to raise awareness of Creative Forces research, both within and beyond the Network

Progress Monitoring – Annual progress monitoring and review executed, Research Strategic Framework document reviewed and updated: *completed by April 2021*

Strategic Objective #2: Organizational Capacity Year 3 Benchmarks

Assets and Resources/Internal Capacity – Capacity-building activities targeted at needs and gaps

Solicitation of Extramural Partnerships – Systems partnerships underway, research award/contract process underway

Systems-level Partners – Key organizational partnerships underway, agreements in place

Researcher-Practitioner Partnerships – RPPs established and/or under development, agreements in place

Funding – Funding resources identified and procured for research projects

Strategic Objective #3: Research Products/Processes Year 3 Benchmarks

Creative Arts Therapies Conceptual Frameworks – Evidence of use in guiding research questions and hypotheses, per identified goals and benchmarks

Priority Research Areas – In each area, evidence of progress within the identified lines of inquiry, per identified goals and benchmarks

Common Tools and Measures – Ongoing vetting and sharing of tools
YEAR 4 (2021): CONTINUING RESEARCH AND ENGAGING PARTNERSHIPS

Strategic Objective #1: Leadership/Governance Year 4 Benchmarks

Clinical Research Advisor – Continued role and responsibilities, developed plans to complete first Five-Year Agenda and develop, initiate, and sustain next Research Agenda: draft sustainability plan developed by October 2021 to cover potential additional Year 5 costs and transition to next Research Agenda; timeline for activities to be conducted in Year 5 for future planning (e.g., review of Year 1 through Year 4 evaluations, systems review, development of next Research Agenda) completed by February 2022

Core Planning Team – Continued to meet on ongoing basis, reviewed Year 3 progress monitoring report and used feedback for program development: review of Year 3 monitoring report completed in May 2021, annual joint meeting with Technical Working Group in May 2021

Technical Working Group – Continued to meet on ongoing basis: annual joint meeting with Core Planning Team in May 2021

Creative Forces Network (sites and telehealth) – Quarterly meetings underway, cross-site information sharing and multisite studies underway

Interested Stakeholders – Interested stakeholders identified, outreach strategy developed and executed

Task-Specific Working Groups – Working groups continued as needed

Communications/Dissemination Strategies – Information disseminated through convening(s), briefing documents, or other means to raise awareness of Creative Forces research, both within and beyond the Network

Progress Monitoring – Annual progress monitoring and review executed, Research Strategic Framework document reviewed and updated: completed by April 2022

Strategic Objective #2: Organizational Capacity Year 4 Benchmarks

Assets and Resources/Internal Capacity – Capacity-building activities targeted at needs and gaps

Solicitation of Extramural Partnerships – Systems partnerships underway, research award/contract process underway

Systems-level Partners – Key organizational partnerships underway, agreements in place

Researcher-Practitioner Partnerships – RPPs established and/or under development, agreements in place

Funding – Funding resources identified and procured for research projects

Strategic Objective #3: Research Products/Processes Year 4 Benchmarks

Creative Arts Therapies Conceptual Frameworks – Evidence of use in guiding research questions and hypotheses, per identified goals and benchmarks

Priority Research Areas – In each area, evidence of progress within the identified lines of inquiry, per identified goals and benchmarks

Common Tools and Measures – Ongoing vetting and sharing of tools
YEAR 5 (2022): CONTINUING RESEARCH, ENGAGING PARTNERSHIPS, PLANNING FOR THE FUTURE

Strategic Objective #1: Leadership/Governance Year 5 Benchmarks

Clinical Research Advisor – Continued role and responsibilities, finalized plans to complete first Five-Year Research Agenda, next Research Agenda finalized, plans to initiate and sustain next Research Agenda in place: sustainability plan finalized by May 2022, all activities for planning the future completed (e.g., full program review and systems analysis) by August 2022, next Research Agenda developed and finalized by October 2022

Core Planning Team – Continued to meet on ongoing basis, reviewed Year 4 progress monitoring report and used feedback for program development, implemented process for reviewing and continuing Research Strategic Framework and Research Agenda after Year 5: full program review (Year 1 through Year 4 evaluation with systems analysis) completed in May 2022, annual joint meeting with Technical Working Group in May 2022

Technical Working Group – Continued to meet on ongoing basis: annual joint meeting with Core Planning Team in May 2022

Creative Forces Network (sites and telehealth) – Quarterly meetings underway, cross-site information sharing and multisite studies underway

Interested Stakeholders – Interested stakeholders identified, outreach strategy developed and executed

Task-Specific Working Groups – Working groups continued as needed

Communications/Dissemination Strategies – Information disseminated through convening(s), briefing documents, or other means to raise awareness of Creative Forces research, both within and beyond the Network; events to present outcomes of Five-Year Research Agenda and kick-Off next Research Agenda during planning phase (summer 2022) and to signal implementation of next Research Agenda (winter 2023)

Progress Monitoring – Annual progress monitoring and review executed; progress monitoring and review plan updated to align with next Research Agenda, Research Strategic Framework document fully revised to reflect next Research Agenda: completed by April 2023

Strategic Objective #2: Organizational Capacity Year 5 Benchmarks

Assets and Resources/Internal Capacity – Capacity-building activities targeted at needs and gaps

Solicitation of Extramural Partnerships – Systems partnerships underway, research award/contract process underway

Systems-level Partners – Key organizational partnerships established, agreements in place

Researcher-Practitioner Partnerships – RPPs established and/or under development, agreements in place

Funding – Funding resources identified and procured for research projects

Strategic Objective #3: Research Products/Processes Year 5 Benchmarks

Creative Arts Therapies Conceptual Frameworks – Evidence of use in guiding research questions and hypotheses, per identified goals and benchmarks

Priority Research Areas – In each area, evidence of progress within the identified lines of inquiry, per identified goals and benchmarks

Common Tools and Measures – Ongoing vetting and sharing of tools
MOVING FORWARD

Progress Monitoring of Research Strategic Framework

Ongoing progress monitoring and cyclic reviews of Creative Forces research—including implementation, outputs, and outcomes—will enable leaders to continuously monitor and improve implementation and practices, and disseminate findings. The reviews will also permit evidence-based program development and inform development of research questions.

Progress monitoring plans will be guided by key indicators. They will include specific benchmarks and a system to track progress quantitatively; a calendar for ongoing monitoring data collection; and a cycle for the Core Planning Team to review monitoring results for program development. The team will review brief data reports quarterly and periodically (e.g., six- or twelve-month intervals) will review the results of monitoring for program-wide planning. Progress monitoring should consider development and vetting of research and intervention practices and tools; research quantity and quality, including the prestige of publication journals; funding procurement; and infrastructure development.

A possible mechanism for data gathering is a dashboard for the Creative Forces Network overall and for each Creative Forces site, which is monitored by the Clinical Research Advisor. The outputs should align with the strategies and include but not be limited to:

- # of studies by type
- # of partnerships of a type
- # of peer-reviewed publications
- # of journals
- # of presentations at national and international conferences
- # of proposals written for funding
- # of grants
- Funds secured

The reflective process of program monitoring will guide the annual reviews and update of the Research Strategic Framework document, which will uphold the intentions and goals of the Creative Forces research initiative.

Dissemination

Informing the public, health-care providers, and other stakeholders about the usefulness of creative arts therapies interventions with military populations is a goal for the Creative Forces Network. To ensure the information reaches a broad audience, the Creative Forces Network will:

- Disseminate information pertaining to Creative Forces research accomplishments to date, current research directions, development of a Creative Forces Network, and opportunities for partnerships
- Provide professional development and technical assistance for disseminating findings across different modalities (e.g., journals, conferences)
- Submit research to peer-reviewed journals
• Present findings at national and international conferences
• Develop evidence-based information documents to help the public make informed decisions
• Generate library of Creative Forces research content to be housed in a publicly accessible Online National Research Center

**Sustainability Planning**

Planning for sustainability must begin at the outset. Critical components for sustainability are embedded in the Research Strategic Framework: the **organizational and leadership structure**, **partnerships**, **capacity building efforts**, **common tools and measures**, **ongoing evaluation**, and **sustainable funding streams**.

- **Organizational and Leadership Structure**: The leadership/governance structure is multilayered: it is not dependent on a single position or individual. Hiring a Clinical Research Advisor, maintaining a Core Planning Team, facilitating cross-site collaborations, and requiring one-year commitments will enhance stability and sustainability. Additional measures to ensure organizational and leadership sustainability will be incorporated into those structures.

- **Partnerships**: If partnerships with agencies, individuals, and organizations are carefully selected and cultivated, they will likely persist through and beyond the five years. The Core Planning Team will monitor the health of partnerships.

- **Capacity Building**: Strengthening the capacity of sites through knowledge development, partnerships, and other forms of assistance will help develop momentum at the sites, as well as self-sufficiency for research. Partners’ resources (e.g. graduate students, existing research programs) may also contribute the capacity and therefore sustainability.

- **Common Tools and Measures**: In addition to an Evaluation Toolkit (under development), the Research Strategic Framework promotes shared measurement protocols, assessment tools, and IT infrastructure, which support ongoing research.

- **Evaluation**: Ongoing evaluation data, if closely reviewed, will identify inefficiencies and areas in need of attention and therefore is key in sustaining the organization and its work.

- **Funding Streams**: Creative Forces has supported research, to date, from existing funding. However, additional funding will be needed to expand the internal capacity of the Network (e.g., Clinical Research Advisor, operations) and for awards to support extramural research awards. Sustainability will require stable funding. In addition, grants and partnerships may also provide access to funding.
APPENDIX A – DEFINITIONS OF INDIVIDUAL CREATIVE ARTS THERAPY DISCIPLINES

The National Organization for Arts in Health (2017, pp. 25-27) provides the following definitions for art, dance/movement, drama, and music therapies.9

**Art Therapy** is a regulated mental health profession that enriches the lives of individuals, families, and communities through active art-making, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship. Art therapy is used to improve cognitive and sensory-motor functions, foster self-esteem and self-awareness, cultivate emotional resilience, promote insight, enhance social skills, reduce and resolve conflicts and distress, and advance societal and ecological change.

**Dance/Movement Therapy** is defined by the American Dance Therapy Association (ADTA) as “the psychotherapeutic use of movement as a process which furthers the emotional, cognitive, physical, and social integration of the individual.” Based on the assumption that the body and mind are interrelated, the dance/movement therapist focuses on movement behavior as it emerges in the therapeutic relationship. Body movement simultaneously provides the means of assessment and the mode of intervention.

**Drama Therapy** is the intentional use of drama and/or theater processes to achieve therapeutic goals. Drama therapy is rooted in the fields of psychology, psychotherapy, occupational therapy, theatre, creative dramatics, psychodrama, and applied theatre. It is a dynamic method of working with client populations in a playful, embodied manner via the accessing power of metaphor.

**Music Therapy** is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program. Music therapists use their knowledge, skills, training, and experience to facilitate therapeutic, goal-oriented music-based interactions that are meaningful and supportive to the functional level and health of more than 40 different client populations.

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TEAM/COMMITTEE ROLES AND RESPONSIBILITIES

The following questions help teams and standing committees define who they are, their roles and responsibilities, and how they work. Questions can be prioritized or selected as appropriate for a given team or committee.

A team charter or organizational statement summarizing the answers to the questions communicates the team’s role and responsibilities within and beyond the team, ensures members are aware of their commitments and the expectations for them, and ensures continuity as individuals rotate on and off the team. The charter should be periodically reviewed and updated, particularly during the early years of organizational development.

**Purpose and authority**

1. Why is the team/committee necessary?
2. What is the overall purpose/mission of the team/committee?
3. What will the team/committee accomplish?
4. What specific areas of the project/program does the team/committee address? (administrative, fiscal, funding, program direction, programming, implementation, evaluation, staffing, policy, advocacy, etc.)
5. What type of authority does the team/committee hold? (decision-making, policy-making, advisory, program review, accountability, recommendation, etc.)
6. Does the team/committee have the power to sign off on decisions/changes? If not, who does?
7. To whom does the team/committee report? When and how?
8. Does the team/committee have any deliverables? To whom and how often?
9. What is the relationship between the team/committee and other departments and committees?
10. How will the team/committee communicate with other departments’ committees?
11. Does the team have a public “face” or presence? What is the nature of that presence and who is responsible?

**Composition**

1. What type of representation is needed, given the purpose and function of the team/committee?
2. What skills, qualifications, and background are necessary for members?
3. How many members are needed?
4. What is the process for identifying members and managing membership turnover?
5. Who will recruit the members?
6. What is the term (length) of a member’s participation?
7. What time commitment is required?
8. Is there compensation for participation?
9. Will members have specific, individual roles?
10. Is training/professional development needed? What and when?

**Administration**

1. Is the committee a standing committee? Ad-hoc committee?
2. How often does the team/committee meet? Where/how?
3. What are expectations for participation? Is meeting attendance required?
4. Who initiates the meetings?
5. Who plans the meetings?
6. Who leads the meetings?
7. Who takes minutes? Are minutes available outside the meeting? If so, to whom and how?
8. How will members communicate with each other between meetings?
9. What process will be used to govern meetings?
10. What process will be used to make decisions?
11. How will the team/committee obtain information necessary to perform their functions? (project/program information, data, etc.)
12. Will there be a periodic internal or external review process of the team and its work? If so, by whom, in what form, for what purpose, and at what intervals?

**PARTNERSHIPS: GUIDING QUESTIONS**

The following questions will help develop partnerships that are goal-directed, effective, and enduring. Questions should be selected as relevant to the partners and the stage of development.

1. What are our shared values? What are our short- and long-term interests?
2. What is the type/structure of the partnership and how will it function? What is the leadership structure?
3. Does the partnership have a public “face” or presence? What is the nature of that presence, how is the partnership represented, and by whom?
4. How long will the partnership last? How will we close the partnership?
5. What is the best institutional home for the partnership?
6. What are the roles and expectations for each partner?
7. What does each institution/entity need for the partnership to work?
8. What types of agreements are needed?
9. How will internal communication and coordination occur?
10. How will external communication (dissemination) occur?
11. How are stakeholders represented?
12. How will we monitor the partnership over time? What are the target outcomes and benchmarks?
13. What challenges or barriers do we anticipate? How can these be mitigated?
14. How will we manage turnover in representatives?
15. What capacity building needs to occur for the partners to work together?
16. What funding is needed for the partnership to be productive? What funding resources are available? Who will manage funding?
17. How will the partnership itself be evaluated and nurtured?
18. How will the partners address problems? What communication approaches will be used for maintaining good communication?

See also: Team/Committee Roles and Responsibilities when establishing how the partners will function as a team.