Liberty University

School of Music

A Glance into the Suzuki Triangle Approach of Teaching Violin as an Intervention for the Military Child: A Case Study of Parental Engagement Promoting Positive Self-Esteem, Self-Expression, and Coping Skills

A Thesis Submitted to

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by

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Abstract

This qualitative descriptive case study followed four volunteer families over four weeks of private Suzuki violin lessons, highlighting the Suzuki Triangle as an intervention for the military child. Participants enrolled in private weekly music lessons and learned to play the violin through the relational triangle of teacher-parent-student working together for the child's well-being. The study particularly emphasized the active role of the service member parents, who attended weekly lessons with their children and worked with them daily at home during practice sessions. The researcher photographed lessons and interviewed and observed participants who completed a preliminary, practice, and exit survey. This study explored how learning the violin through the Suzuki Triangle approach could benefit the military child as an intervention through its focus on parental engagement of the service member parent. Results indicated that participation in this study encouraged military children toward positive self-esteem, self-expression, and coping skills, offering a hopeful outlook for the potential of the Suzuki Triangle as a helpful intervention. The service member and military child's perceived level of connectedness from participating in this research ranged from connected, very connected, to highly connected, and participation in this research provided an opportunity for quality, one-on-one time between service member and military child. These findings may suggest that learning the violin through the Suzuki Triangle approach can offer a viable intervention for the at-risk military child.

Keywords: military child, music education, Suzuki violin, Suzuki Triangle, intervention

Dedication/Acknowledgments

I want to begin by giving thanks to God for guiding me along this path, teaching me to be patient, loving me continually, and providing opportunities to grow in my field of knowledge and in the knowledge of who He is, Lord and King.

I want to thank my husband, Lance, for encouraging me to continue even though it did not make sense financially and for loving me through the many evenings and weekends spent sitting on the couch doing my homework. He has financed most of my education and much of my music training. Through the lens of being a military spouse, I decided to branch out into this study whole-heartedly believing that music education can provide intervention and support for the military child whom I have witnessed firsthand needing programs geared to bonding and quality time with their service member parent.

I am deeply grateful to my daughter, Hannah, for her understanding and patience during my academic journey. I recognize that my studies often demanded her understanding and flexibility, especially when she was being home-schooled. It was for Hannah's benefit that I became a Suzuki violin teacher, determined that I would teach her, and we would grow in musicianship and most importantly in relationship.

I want to thank my School of Music professors at Liberty University, who ignited my genuine love for writing and researching.

I want to thank Dr. Nathan Street, who taught my Introduction to Thesis class and helped me generate the first draft of Chapter 1. He pushed me to choose a topic before I was ready and edited my work, saying, "You can still get this a little better." Under his supervision, I rewrote my first chapter three times, choosing similar but different paths until I settled on one that closely resembled the final research.

I want to thank Dr. Rebecca Watson and Dr. Hanna Byrd for believing in my topic and its significance, and for helping to bring my research to the final stages. I am grateful for the time they spent reading and editing.

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I want to thank my parents for always loving and caring no matter the season, teaching me the importance of serving and loving others, and teaching me the importance of having a work ethic. Thank you both for giving me the greatest gift: teaching me about Jesus. I want to thank my dad, a Vietnam veteran who inspired me to research PTSD and its effects on the military family.

I am thankful for my Suzuki violin trainers, who have led me to better practice as a teacher. A special thank you to David Strom, a fantastic teacher trainer from whom I have learned so much.

Contents

List of Tables

Abbreviations

AR- Androgen receptor

BGCA- Boys & Girls Clubs of America

DNA- Deoxyribonucleic acid

DoD-Department of Defense

FOCUS- Families Overcoming Under Stress

IRB- Institutional Review Board

MC- Military Child

MRI- Magnetic Resonance Imaging

MTBI- Mild traumatic brain injury

NEA- National Endowment for the Arts

PCS- Permanent change of station

PES- Parental emotion socialization

PTA- Parent Teacher Association

PTSD-Post-Traumatic Stress Disorder

RFL- Reason for Living

SM-Service Member

SMP-Service Member Parent

TAD- Temporary Additional Duties

TBI- Traumatic Brain Injury

TDY- Temporary Duty

VA- Veterans Affairs

YMCA- Young Men's Christian Association

Chapter One: Introduction

Military families are coping with challenges that can "impact the stability of the family, including frequent parental travel/absences, parental illness and injury, frequent moves, social isolation, and distance from family and social support."[1] There are challenges with connectivity/bonding of the service member (SM) and their family members following a deployment and these challenges are exacerbated with the potentiality of a SM returning with trauma.[2] The researcher in this study explored the effects of learning violin through the Suzuki Triangle approach as an intervention for the military child (MC) through parental engagement of the service member parent (SMP), leading to coping skills, positive self-esteem, self-expression and a resource for improved perceived connectedness and quality time.

Background

Research suggests that military children are at-risk and need intervention methods.[3] "Problem behaviors can manifest in military children as young as 6 years old (e.g., physical violence). Some military children have better outcomes (i.e., resiliency). These differences in outcomes are not fully understood; literature agrees that parent's interaction with their children predicts resiliency."[4] Other methods already established that focus on interacting with children to promote resiliency consist of parents reading with their children,[5] and horseback riding lessons

[1] Rachel M. Sullivan, Stephen J. Cozza, Joseph G. Dougherty, "Children of Military Families," *Child and Adolescent Psychiatric Clinics of North America,* Volume 28, Issue 3, (2019): 337.

[2] Alison L. Drew, et al. "This Gradual Swing Back into Us": Active-Duty Army Spouses' Experiences During Homecoming and Post-Deployment Family Reintegration," *Journal of Family Issues.* 43, no. 7 (2022): 1949.

[3] Katherine Marie Conover, "Tell Me A Story: Promoting Resiliency in Military Children with a Bibliotherapy Intervention," *Nursing Forum* (Hillsdale) 55, no. 3 (2020): 439.

[4] Conover, "Tell Me A Story," 439.

[5] Ibid., 440.

focused on improving mental health and building family relationships.[6] In 2019, The Veteran Suicide Prevention Bill included “equine activities” as a resiliency resource for military families.[7] “Involving families in such activities increases positive behavior in youths.”[8]

According to military and family life counselors, resilient military children have "positive self-esteem, relationships with caring adults, ability to care for others, effective problem-solving skills, an acceptance that change is part of life.”[9] Military and family life counselors suggest that SMs spend extra time with their children, listening to and praising them to help them with resiliency.[10] A recent study on the "social and emotional communication processes of post-deployment fathers and their children" indicated that "parenting intervention benefits these processes."[11] Retention in the military often revolves around the satisfaction of the SM’s family.[12] According to recent research, “Disenfranchising the military spouse and lack of services and support for military-connected children could create a gap in meeting recruitment goals creating a threat to national security in the United States.”[13]

[6] Karl Hoopes, Makenna Osborne, “Ride Utah! Resiliency-Building Horse Rides for Military Personnel and Families,” *Journal of Extension* Volume 58 No. 5 (10, 2020):1.

[7] Ibid.,1.

[8] Ibid.,1.

[9] “Privacy Policy,” Privacy & Terms, Google, last modified June 6, 2023, Microsoft PowerPoint - P0217_Building Resiliency in Children. A Parent's Guide.ppt (wordpress.com), 7.

[10] Ibid., 9.

[11] Abigail H. Gewirtz, James Snyder, Osnat Zamir, Jingchen Zhang, and Na Zhang, "Effects of the After Deployment: Adaptive Parenting Tools (ADAPT) Intervention on Fathers and their Children: A Moderated Mediation Model," *Development and Psychopathology* 31, no. 5 (12, 2019): 1839.

[12] Rossiter, "Building Resilience in US Military Families,” 92.

[13] Ibid., 91.

Statement of the Problem

Military children go through a lot of unique changes and challenges due to military family life, which may affect the stability and connectivity within the household between the MC and the SMP. A SM's deployment cycle, training, travel, injuries, mental health, and permanent change of station (PCS) can affect the entire household. A recent study on the "social and emotional communication processes of post-deployment fathers and their children" indicated that "parenting intervention benefits these processes."[14] Unfortunately, there is not enough research on the Suzuki Triangle, which involves the teacher, parent and student working collaboratively to learn the violin as a method of intervention for the military child. The goal is to encourage parental engagement between the SMP and their child, and provide an opportunity for self-expression, positive self-esteem, and coping skills. There is a need for more resource opportunities for service members to connect and interact with their children.

Research from multiple peer reviews regarding post-deployment intervention for military families indicates that military children are at risk of being separated from their parents and worrying about their parents' safety, which can negatively impact their well-being.[15] Current research reveals the need for parent-child relationship development, parental discipline strategies, and "parental socialization of children."[16] There is also research indicating the need for "parental emotion socialization (PES) practices," which involves "parenting behaviors that

[14] Abigail H. Gewirtz, James Snyder, Osnat Zamir, Jingchen Zhang, and Na Zhang, "Effects of the After Deployment: Adaptive Parenting Tools (ADAPT) Intervention on Fathers and their Children: A Moderated Mediation Model," *Development and Psychopathology* 31, no. 5 (12, 2019): 1839.

[15] Na Zhang, Sun-Kyung Lee, Jingchen Zhang, Timothy Piehler, and Abigail Gewirtz, "Growth Trajectories of Parental Emotion Socialization and Child Adjustment Following a Military Parenting Intervention: A Randomized Controlled Trial," *Developmental Psychology.* 56, no. 3 (2020): 652.

[16] Ibid., 661.

reflect parental beliefs, goals, and values in regard to children's experience, expression, and modulation of emotions."[17] Many studies focus on the mothers' influence and interaction with their children. Little research focuses on service-member fathers and their impact and influence on their children, and less research is on service members who have Post Traumatic Stress (PTSD) and their influence on their children's well-being.[18]

Paris et al. discovered that "separation from the service-member parent is a potentially traumatic event without a supportive and responsive caregiver for a very young child.[19] Relationship-based interventions are essential to the health of military families with young children who have "experienced disrupted attachments, parental trauma symptoms, or both during reintegration."[20] According to surveys conducted by Military One Source, approximately "two-thirds (64 percent) of all military children showed increased levels of fear and anxiety, while older teens (ages 14-18) were less likely to have increased levels of fear and anxiety (50 percent)" of military children's parents' post-deployment.[21] The age most affected by a parent's

[17] Na Zhang et al., "Growth Trajectories of Parental Emotion Socialization and Child Adjustment Following a Military Parenting Intervention," 661.

[18] Ellen DeVoe et al., "Very Young Child Well-being in Military Families: A Snapshot," *Journal of Child and Family Studies* 27, no. 7 (07, 2018): 219.

[19] Ruth Paris et al., "When a Parent Goes to War: Effects of Parental Deployment on Very Young Children and Implications for Intervention," *American Journal of Orthopsychiatry.* 80, no. 4 (2010): 5.

[20] Ibid., 5.

[21] Report to the Senate and House Committees on Armed Services National Defense Authorization Act for Fiscal Year 2010 Section 571, "Report on the Impact of Deployment of Members of the Armed Forces on Their Dependent Children" *United States of America Department of Defense*, October (2010): 17. https://download.militaryonesource.mil/12038/MOS/Reports/Report_to_Congress_on_Impact_of_Deployment_on_Military_Children.pdf.

deployment was 6-8.[22] Children of all ages experienced increased behavioral problems at home and school.[23]

Frequent moving in the military can create family stress. Oftentimes military families move every three years with the potential of a MC changing schools at least six-nine times.[24] In addition to saying goodbye to old friends, and having to make new friends, there can be academic challenges to changing schools' in that not all schools are designed to meet the need of a child experiencing recurrent disruptions.[25] Frequent disruptions in relationships can have an adverse effect on the MC.

Creative art therapy, which is an initiative of the US National Endowment for the Arts (NEA), Creative Forces: NEA Military Healing Arts Network, and partnership with the US Departments of Defense and Veterans Affairs, recently published an article regarding the importance of the creative arts in the "health, wellness, and quality of life" for military, veterans and their families.[26] Some of the ways that Creative Art Therapy serves military families are by addressing "social skills, emotional regulation, and self-expression through shared musical

[22] Report to the Senate and House Committees on Armed Services National Defense Authorization Act for Fiscal Year 2010 Section 571, "Report on the Impact of Deployment of Members of the Armed Forces on Their Dependent Children:" 16.

[23] Ibid., 17.

[24] Learn4Life Salutes, "Children of Military Month: Frequent Moves Don't Need to Affect School and Learning," *PR Newswire*, Apr 18, 2019: 1.

[25] B. Freeman, Georgia Salivar E, Thayer KK, The Impact of the Military Lifestyle on Adult Military Children Relationships, *Couple & family psychology*, 2024;13(1): 2.

[26] Gioia Chilton et al., "Creative Forces Programming with Military Families: Art Therapy, Dance/Movement Therapy, and Music Therapy Brief Vignettes," *Journal of Military, Veteran, and Family Health* 7, no. 3 (2021): 105.

experiences."[27] There has not been any research on learning the violin through the Suzuki Triangle approach as a strategy for SM's to engage in shared musical experiences with the MC.

Statement of Purpose

The purpose of this qualitative descriptive case- study is to explore the effects of learning violin through the 'Suzuki Triangle' approach as a method of intervention for the military child. This approach, which heavily relies on parental engagement between SM parent and MC, provides an opportunity for the child to develop positive self-esteem, self-expression, and coping skills. The Suzuki Triangle may also enhance parental involvement, quality of time, and one-on-one interaction, encouraging SMs to focus on their child's development by actively participating in their music lessons and at-home practicing. "Resilience in children is closely linked to the following three key elements: child's personal characteristics, positive parent-child relationships, and community-level support."[28]

Creating opportunities for the parent-child to connect, engage and pursue music making and learning together is essential to this research. This approach may create opportunities for more parent interaction between the SM and the MC. In this method, the SM parent attends lessons with their child and plays an active role in helping the child learn how to play an instrument. The SM parent attends the lesson without the distraction of phones and computers so that they can actively listen and respond to their child and the teacher. Following the lessons, the parent acts as a co-teacher and motivator and encourages daily practice with the child.

[27] Gioia Chilton et al., "Creative Forces Programming with Military Families: Art Therapy, Dance/Movement Therapy, and Music Therapy Brief Vignettes," 105.

[28] Report to the Senate and House Committees: 23.

Significance of the Study

The significance of this research is that if it is successful, it will provide an effective intervention for at-risk military children and an opportunity for support, encouragement, self-expression, positive self-esteem, and coping skills. "There is evidence that military children experience socio-emotional problems, such as anxiety and depression, at higher rates than children in the civilian population."[29] Relational based interventions may mitigate these socio-emotional problems. Through the relationship-based Suzuki Triangle approach, it is hypothesized that the SM and MC will engage in music learning and music making for the benefit of the MC. This study will explore how at-risk military children and their SM parent can connect with an activity that may create a perceived positive change in the military child through its ability to create a shared goal, quality one-on one time and perceived connectedness.

Theoretical evidence suggests that this study could elevate Suzuki violin lessons as a discipline that can create opportunities for the SM parent and MC to engage in learning and making music together. Music educators, as key researchers, can explore methods to broaden, study, observe, survey, and interview participants on music engagement and learning results for military family support, especially concerning military children that encourage "parent engagement," child-perceived "self-expression, and "empowerment."[30]

[29] Peck et al., "Talking about Mental Health: Dilemmas US Military Service Members and Spouses Experience Post Deployment," 91.

[30] Judy Rollins and Ermyn King, "Promoting Coping for Children of Hospitalized Service Members with Combat Injuries through Creative Arts Engagement," *Arts & Health* 7, no. 2 (2015): 109.

Research Question

In what ways does learning how to play the violin through the Suzuki Triangle approach benefit the military child?

a. How will learning the violin through the Suzuki Triangle approach affect the perceived connectedness between SM and MC?
b. What are the effects of the Suzuki Triangle approach of teaching violin on self-esteem, self-expression, and coping skills for the MC?
c. What are the experiences of the SM parent and MC who are enrolled in Suzuki violin lessons?
d. What roles will the SM parent play in supporting the MC through the Suzuki Triangle approach?

Definition of Terms

Co-pathy- The social function of empathy.[31]

Oxytocin- A "ring-structured neuropeptide consisting of nine amino acids that are mainly synthesized in the hypothalamic paraventricular (PVN) and supraoptic nucleus." [32]

Hippocampus- "A core region in the limbic system and has widespread connections to such diverse cortical areas as the prefrontal cortex, anterior thalamic nuclei, amygdala, basal ganglia and hypothalamus, all of which are regions that comprise the neuroanatomical network of mood regulation."[33]

Post-deployment- The time directly following a military deployment.

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[31] Stefan Koelsch, "Brain Correlates of Music-Evoked Emotions," *Nature Reviews. Neuroscience* 15, no. 3 (03, 2014):175.

[32] Tobias Pohl et al., "Lost Connections: Oxytocin and the Neural, Physiological, and Behavioral Consequences of Disrupted Relationships," 54.

[33] Frodl Schaub et al., "Reduced Hippocampal Volume Correlates with Executive Dysfunctioning in Major Depression," *J. Psychiatry Neuroscience,* (Sept. 31, 2006): 316.

Post-Traumatic Stress Disorder- A mental health problem. PTSD can only develop after you go through or see a life-threatening event.[34]

Suzuki Method- The core concepts of the Suzuki method revolve around the idea that every child can learn just as every child has learned to speak their native language (mother tongue); parental involvement and an early start are essential. Listening, repetition, and encouragement are necessary. Other elements include learning with other children, graded repertoire, and delayed reading (until the child is stable in their technique).[35]

Suzuki Triangle- The parent works with the child and teacher to learn an instrument, including attending weekly private lessons and practicing daily with the child.

Traumatic Brain Injury- "Traumatically induced structural injury and/or physiological disruption of brain function as a result of an external force that is indicated by new onset or worsening of at least one of the following clinical signs, immediately following the event: any period of loss of or decreased level of consciousness; any loss of memory for events immediately before or after the injury; any alteration in mental state at the time of the injury; neurological deficits that may or may not be transient; inter-cranial lesions."[36]

Summary

The Suzuki Triangle is a unique tool to facilitate parental-child interaction and may benefit the MC who experiences the stresses of military life. Researchers have yet to study the benefits of learning the violin through the Suzuki Triangle as an intervention method for military

[34] "Privacy Policy," Privacy & Terms, Google, last modified June 25, 2023, https://www.ptsd.va.gov/understand/what/ptsd_basics.asp.

[35] "Privacy Policy," Privacy & Terms, Google, last modified September 9, 2023, https://suzukiassociation.org/about/suzuki-method/.

[36] Valerie J Rice et al., "The Effect of Traumatic Brain Injury (TBI) on Cognitive Performance in a Sample of Active Duty U.S. Military Service Members," *Military Medicine,* 185, no. Supplement_1 (2020): 184.

children through its emphasis on active parent support. Learning the violin via the Suzuki Triangle, providing an opportunity for the military child and their SM parent to engage in music together, and providing opportunities for SMs to interact, encourage, and support their children is a critical study for military families.

Chapter Two: Literature Review

Overall, this literature review provides a comprehensive look at the various issues affecting military families and the potential solutions that can be implemented to help the MC. The literature review includes the following topics: the history of army family support, recent research on music therapy provided to military service members, veterans, and their families, and the effects of music on the brain and its healing potential. Other areas of focus include the Suzuki teaching method and the Suzuki Triangle. Additionally, the literature delves into darker issues that military families face, such as PTSD, secondary PTSD, traumatic brain injury (TBI), mild traumatic brain injury (MTBI), suicide, and suicide prevention. Furthermore, the literature review provides valuable insights into healthy parenting, risk factors for military children, family readiness, and intervention methods offered by military support groups to assist the military community. The information contained in the literature review can be used to inform best practices for supporting military families and help guide future research in this area. The insights gained from this research can help inform the development of effective support programs for military families and contribute to a better understanding of the unique challenges they face.

History of Army Family Support

There was little support for military families until 1983 when the Army Chief of Staff General John A. Wickham Jr., published a “White Paper” that highlighted the importance of the military SMs family as providing a critical supportive role. Following this publication, programs and policies were established to support the military family. Programs such as, 1984 - the Army Family Action Plan (AFAP), and 1984-the U.S. Army Community and Family Support Center (CFSC). These programs began to include “childcare, youth programs, schools, libraries, sports and athletics, financial counseling, spouse employment programs, in-theater support to deployed

Soldiers, Family Readiness Groups, lodging, and fitness centers." [37] Changes to title and focus have occurred through the years, resulting in the current family support program, Morale, Welfare and Recreation (MWR) whose mission states, "is committed to the well-being of the community of people who serve and stand ready to defend the nation, to enhance the lives of Soldiers, their families, civilian employees, and military retirees. The mission is to serve the needs, interests, and responsibilities of each individual in the Army community for as long as they are associated with the Army, no matter where they are."[38]

Although family support programs are currently available to military families, more programs that bridge SM to reintegrating with their family after a deployment, create opportunities for healthy parenting, and connect SM and MC through parental engagement are necessary for the health and wellness of the entire family. Under TRICARE health insurance, ancillary therapies are available to active-duty families and veterans. These therapies, which form an integral part of treatment plans, are offered at various types of facilities. The range of therapies includes art, music, dance, occupational, and other ancillary therapies, offering options for effective treatment.[39]

Music Therapy

Music Therapy for Military Service Members

Music therapy is offered as "clinical treatment throughout the Department of Veterans Affairs (VA) and the Department of Defense (DoD) in the United States (US)." Music therapy is

[37] "Privacy Policy," Privacy & Terms, Google, last modified, April 26, 2024. https://www.armymwr.com/about-us/history.

[38] Ibid., https://www.armymwr.com/about-us/history.

[39] "Privacy Policy," Privacy & Terms, Google, last modified, April 26, 2024. https://tricare.mil/CoveredServices/IsItCovered/MentalHealthTherapeuticServices.

"integrated as a clinical offering in interdisciplinary treatment programs along with other creative arts therapies and traditional rehabilitative and medical services." There have been multiple studies finding that music can reduce depression and insomnia and act as a "tool for self-management of emotional and cognitive issues with veterans."[40]

According to the Creative Forces: NEA Military Healing Arts Network, music therapy is, "The clinical and evidence-based group of music interventions to accomplish individualized (non-musical) goals within a musical relationship by a credentialed professional who has completed an approved music therapy program."[41] A recent dissertation on music therapy and anxiety found that "Music therapy is a type of complementary method, used to reduce all disorders stemming from anxiety. In comparing pharmacological therapy to an alternative such as music therapy, it is less invasive, there are fewer chances of people having side effects to medication, and it is just as adequate for anxiety relief."[42]

Through the Creative Forces, a recent study of music therapy amongst service members from four different military bases found that 85.8% of participants believed music therapy sessions were moderately to very helpful.[43] Other findings included "87.8% reported that they were able to express emotions through music experiences, including pleasure and enjoyment (67%), calm and peacefulness (41.4%), happiness (33%), and nostalgia and longing (11.5%), decrease in physical tension (56.3%), heart rate (35.9%), and respiratory rate (25%)."[44] In this

[40] Rebecca Vaudreuil, Jacelyn Biondo, and Joke Bradt, "Music Therapy with Active-Duty Service Members: Group Protocol Description and Secondary Analysis of Protocol Evaluations," *Music Therapy Perspectives.* 38, no. 2 (2020): 167.

[41] Ibid., 171.

[42] Victoria Omson,"Reduction of Anxiety through Music Therapy," Order No. 28870316, University of Massachusetts Global, (2021): 12.

[43] Rebecca Vaudreuil et al., "Music Therapy with Active-Duty Service Members," 173.

study, listening to music was used to encourage breathing and relaxation to reduce anxiety. Active-duty soldiers participated in group music-making through drumming. "Group cohesion," intentional listening, relaxation, tension release, and attention building were all accomplished through group music-making.[45]

Music Therapy for Children with Emotional Disturbances

Research on music therapy for military children indicates that music making and listening can potentially help children suffering from emotional disturbances. The National Endowment for the Arts Creative Forces, lists eight main reasons why music is beneficial for SMs, their families, and military veterans indicating that music is a core function of the brain, the body, emotion, memory, neurologic associations, attention and executive functions, neural circuitry, receptive and expressive communication systems, social structures, and interactions.[46]

A recent thesis focused on using music to encourage healing and well-being in children who suffer from emotional disturbances actively and passively engaged children in playing instruments, listening to music, tone, lyrics, and the emotion of the music, singing and improvising music.[47] The goal was to help children "self-regulate, set and understand boundaries, and express themselves through the art of music."[48] In this study, music was used as a "therapeutic strategy to improve social-emotional development."[49]

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[44] Rebecca Vaudreuil et al., "Music Therapy with Active-Duty Service Members," 173.

[45] Ibid., 171.

[46] Ibid., 171.

[47] Miranda, Simone. "Music Therapy and Emotionally Disturbed Children's Social-Emotional Development." Order No. 29214470, Saint Mary's College of California, (2022): 22.

[48] Ibid., 19.

[49] Ibid., 21.

Why Music?

According to the National Endowment for the Arts Creative Forces, there are eight main reasons why music is beneficial as a therapy for SMs, their families, and military veterans:

1. Music is a core function of the brain, which is primed to respond to and process music.

2. Bodies entrain to rhythm due to the motor system's innate ability to synchronize to a beat.

3. Humans psychologically respond to music, measured through changes in biological markers such as respiratory rate, heart rate, blood pressure, or getting the "chills."

4. Music taps into emotions via working, short- and long-term memory, and creating neurologic associations.

5. Music improves attention and executive function through anticipation and expectation. Music shares neural circuitry with speech.

6. Listening to and singing lyrical music directly correlates to receptive and expressive communication systems.

7. Music is a collective experience and is used as a tool for social structure. Music-making is a distinct social action that can impact other types of social interactions.

8. Music is non-invasive, safe, and motivating; overall, most people enjoy music![50]

The Healing Power of Music

Music and its Effect on the Brain and Hormones

Scientists are discovering what happens to the brain when listening to and engaging in music. "Music engages many areas distributed throughout the brain, including those that are

[50] Rebecca, Vaudreuil et al., "Music Therapy with Active-Duty Service Members:" 171.

usually involved in other kinds of cognition."[51] Different musical tasks involve different parts of the brain, and researchers can now use digital scans to determine where those places originate. The brain responds differently to music based on each unique person's training, musical experiences, and knowledge. There is a rewiring of the brain that happens with musical activities. Some brain areas are more developed in musicians who spend many hours practicing and studying music.[52] A recent study using an MRI compared musicians with non-musicians, investigating "experience-dependent plasticity in human large-scale brain networks" to determine if early musical training can "cause neuroplastic adaptations that are paralleled by improvements in audition, sensory-motor skills, and possibly higher-order cognitive functions."[53] Findings indicated that long-term musical training is associated with robust changes in large-scale brain networks [54]

There was another recent twenty-one subject study aimed at determining if neural plasticity was affected by music. In this study, saliva test measuring testosterone, estradiol, and cortisol was given to participants to determine if hormone levels changed based on listening examples. DNA tests determined the subjects' androgen receptor (AR) and arginine vasopressin receptor 1A genotypes.[55] "It is believed that music confers neuronal plasticity and is involved in the learning process and readjustment. An example is the response of brain cells to musical

[51] "Privacy Policy," Privacy & Terms, Google, last modified April 21, 2023, https://www.scientificamerican.com/article/music-and-the-brain-2006-09/#.

[52] Ibid., https://www.scientificamerican.com/article/music-and-the-brain-2006-09/#.

[53] Simon Leipold, Carina Klein, and Lutz Jäncke, "Musical Expertise Shapes Functional and Structural Brain Networks Independent of Absolute Pitch Ability," *The Journal of Neuroscience* 41, no. 11 (2021): 2496.

[54] Ibid., 2496.

[55] Hajime Fukui, and Kumiko Toyoshima. "Influence of Music on Steroid Hormones and the Relationship between Receptor Polymorphisms and Musical Ability: A Pilot Study." *Frontiers in Psychology* 4, (2013): 1.

stimuli.[56] “Steroid hormones may hold the key to unlocking the mechanism that underlies the effect of music on neurons because they confer neuronal plasticity. In particular, T and estrogen are deeply involved in brain cell regeneration, restoration, and protection. They also have strong connections with recognition, memory, and emotion and thus may be associated with mental disorders.”[57]

New research with MRI scans reveals that music can stimulate the hippocampus, which is often structurally damaged in people suffering from depression and PTSD.[58] Listening and playing music encourage “co-pathy," and may increase oxytocin production.[59] Listening, playing, and learning music can heal the structural damage of the hippocampus and increase oxytocin production through the social aspect of group music making.[60] “Functional neuroimaging studies on music and emotion show that music can modulate activity in brain structures that are known to be crucially involved in emotion, such as the amygdala, nucleus accumbent, hypothalamus, hippocampus, insula, cingulate cortex, and orbitofrontal cortex.”[61] With new technological advances in neuroimaging research, there is evidence to support that "music is processed in the brain through a complete neural network that includes the sensory, auditory, motor, visual, and prefrontal cortex, along with the amygdala, hippocampus, and

[56] Hajime Fukui, and Kumiko Toyoshima. "Influence of Music on Steroid Hormones and the Relationship between Receptor Polymorphisms and Musical Ability: 1.

[57] Ibid., 2.

[58] Stefan Koelsch, "Brain Correlates of Music-Evoked Emotions," *Nature Reviews. Neuroscience* 15, no. 3 (03, 2014): 174.

[59] Ibid., 174, 175.

[60] Ibid., 174.

[61] Ibid., 170.

cerebellum."[62] The mystery of how the effect of music can assist in the healing of the brain is being uncovered with modern technology and it is becoming clearer that music has a healing power.

In a study about how music influences physiological and biochemical, two groups of students who suffer from depression took saliva tests. The group who listened to music versus those who did not listen to music seemed to have lower cortisol levels. "Music reduces stress and anxiety levels and even enhances performance on abstract/spatial reasoning tests."[63]A narrative review study of a meta-ethnography of 46 qualitative studies about playing music for neuroplasticity, brain recovery, stress relief, coping, and emotional regulation found that playing music can decrease dissociation symptoms and reduce depression and anxiety levels in PTSD patients. The study results indicated that actively participating in music through singing encouraged "self-development, providing respite from problems, and fostering social connections."[64]

There are a prolific number of medical studies on the positive effects of listening to music to lower anxiety and pain. In a study led by nurses who examined four groups of endoscopic outpatients found that the patients who listened to music during the procedure had less anxiety and pain. The results indicated that music during an endoscopic exam in “conscience

[62] Rebecca Vaudreuil, *Music Therapy with Military and Veteran Populations*. London; Philadelphia: Jessica Kingsley Publishers, (2021): 48.

[63] Tiffany Field, Alex Martinez, Thomas Nawrocki, Jeffrey Pickens, Nathan Fox, and Saul Schanberg. "Music Shifts Frontal EEG in Depressed Adolescents." Adolescence 33, no. 129 (1998): 110.

[64] Usha Pant et al., “A Neurobiological Framework for the Therapeutic Potential of Music and Sound Interventions for Post-Traumatic Stress Symptoms in Critical Illness Survivors." *International Journal of Environmental Research and Public Health* 19, no. 5 (2022): 3191.

sedation" reduces anxiety and pain.[65] A similar study with patients requiring a nasal fracture reduction with local anesthesia found that the patients who listened to music through headphones had lower blood pressure, anxiety and pain during the procedure.[66] Likewise, similar results were found in studies on listening to music to reduce anxiety in image guided breast biopsies,[67] and listening to music to lower anxiety in third molar extractions.[68] A recent meta-analysis-controlled study tested to determine if music listening could reduce anxiety in people experiencing "naturally occurring anxiety" found that music listening effectively lowered anxiety.[69] Listening to music is an effective means to lowering anxiety and can potentially help those suffering from anxiety related issues.

"In a meta-review of 400 studies investigating the effect of music on brain chemistry, it was found that music contributes to the production of peptides such as oxytocin, vasopressin and dopamine that add to the creation of social bonding, and endogenous opioids that contribute to the maintenance of steady social relationships."[70] Listening to and learning

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[65] Rocco Spagnuolo, Alessandro Corea, Mariantonietta Blumetti, Alessia Giovinazzo, Massimiliano Serafino, Caterina Pagliuso, Raffaele Pagnotta, et al. "Effects of Listening to Music in Digestive Endoscopy: A Prospective Intervention Study Led by Nursing." *Journal of Advanced Nursing* 76, no. 11 (2020): 2993.

[66] Alvaro Ortega, Felipe Gauna, Daniel Munoz, Gerardo Oberreuter, Hayo Breinbauer, and Loreto Carrasco. "Music Therapy for Pain and Anxiety Management in Nasal Bone Fracture Reduction: Randomized Controlled Clinical Trial." *Otolaryngology-Head and Neck Surgery* 161, no. 4 (2019): 613.

[67] Debbie Bennett, Shannon Swan, Scott Gazelle, and Mansi Saksena. "Music during Image-Guided Breast Biopsy Reduces Patient Anxiety Levels." *Clinical Imaging* 65, (2020): 18.

[68] João Luiz Monteiro, Gomes Carneiro, Davi da Silva Barbirato, Sandra Lúcia Dantas Moraes, Eduardo Piza Pellizzer, and do Egito Vasconcelos, Belmiro Cavalcanti. "Does Listening to Music Reduce Anxiety and Pain in Third Molar Surgery? -a Systematic Review." *Clinical Oral Investigations* 26, no. 10 (2022): 6079.

[69] Cristina Harney, Judith Johnson, Freya Bailes, and Jelena Havelka. Is Music Listening an Effective Intervention for Reducing Anxiety? A Systematic Review and Meta-Analysis of Controlled Studies. *Vol. 27. London, England: SAGE Publications*, (2023). 263.

[70] Bolette Daniels Beck, Steen Teis Lund, Ulf Søgaard, Erik Simonsen, Thomas Christian Tellier, Torben Oluf Cordtz, Gunnar Hellmund Laier, and Torben Moe. "Music Therapy Versus Treatment as Usual for Refugees Diagnosed with Post-traumatic Stress Disorder (PTSD): Study Protocol for a Randomized Controlled Trial." *Current Controlled Trials in Cardiovascular Medicine* 19, no. 1 (2018): 330.

music can heal the brain, increase the feel-good hormone of oxytocin, and stimulate the hippocampus. Group music-making is also beneficial in a physiological way.

Social Music Making

Bonding and sharing experiences and goals are attributes of group music-making. Human beings are naturally social, and a person's health and well-being depend on social relationships. All people require connection and acceptance. Research indicates that positive social interactions may influence hormones, lifespan, survival, and "a lower risk for the development of neurotic symptoms and mental health problems."[71] The relationship in a family and marriage can be the most significant influence on a person's well-being. Healthy relationships can act as a "buffer" to negative stressors and experiences, which can build resiliency. This "buffer" can also protect people from developing "psychiatric or physiological illnesses following adverse events."[72] Group music-making encourages social interaction and can strengthen participants' ability to empathize by providing opportunities to share goals and activities.[73] Oxytocin increases in bonding or social experiences such as group music lessons.[74] Research suggests that music-making will improve hormones and cortisol levels, and the group setting of music lessons will

[71] Monika Eckstein, Ana Almeida de Minas, Dirk Scheele, Ann-Kathrin Kreuder, René Hurlemann, Valery Grinevich, Beate Ditzen, "Oxytocin for learning calm and safety," *International Journal of Psychophysiology,* Volume 136, (2019): 8.

[72] Ibid., 8.

[73] Hajime Fukui, Kumiko Toyoshima, "Music Increases Altruism through Regulating the Secretion of Steroid Hormones and Peptides," *Medical Hypotheses,* Volume 83, Issue 6, (2014): 707.

[74] Tobias Pohl, Larry Young, Oliver Bosch, "Lost connections: Oxytocin and the neural, physiological, and behavioral consequences of disrupted relationships," *International Journal of Psychophysiology*, Volume 136, (2019): 54.

create an environment of perceived confidence and self-worth. Studies show that music imagery is also a powerful tool for healing the brain.[75]

The positive emotions in healthy relationships and social interactions may contribute to a healthy hippocampus. Studies show reduced hippocampal volume in people who have not experienced tender positive emotions. In animal studies, the hippocampus regulates "oxytocin into the bloodstream by the pituitary gland."[76] Making music in groups can strengthen critical components of human well-being, such as communication, cooperation, and sharing goals, intentions, and emotions.[77] These components of human well-being are all critical for healthy interactions within a family. Military families need opportunities for healthy interactions and intervention methods to improve mental, emotional, and relational well-being.[78] Learning how to play an instrument may create a sense of perceived personal value, confidence, and success and establish meaningful and healthy coping strategies for families suffering from post-deployment effects. One way to contribute to healthy well-being is by providing opportunities for families to connect post-deployment.

Impact of SM Deployment on the Family

There are contributing factors to the MC being at-risk including the many changes within their household when a SM parent returns from a deployment. A recent study with fifty US military service members and their spouses indicated that service members and their families

[75] Denise Grocke, ed. *Guided Imagery and Music: The Bonny Method and Beyond*. (Dallas, TX: Barcelona Publishers, 2019): 30.

[76] Koelsch, "Brain Correlates of Music-Evoked Emotions," 174.

[77] Ibid., 174.

[78] Peck, et al., "Talking about Mental Health: Dilemmas US Military Service Members and Spouses Experience Post Deployment," 91.

need support during the reintegration period of post-deployment.[79] According to recent research, there are three stages to homecoming and reintegration post-deployment. First, the spouse and children prepare for the SMs return (prepping, cleaning, cooking). Following the return is a "honeymoon" phase, usually accompanied by the SM taking leave dates and the family enjoying a vacation. The third phase of the transition revolves around shared household responsibilities. Often, spouses have difficulty letting go of established routines that work well during deployment. A recent survey of military army wives reported that some spouses felt that the SM's communication was harsh, which made them reluctant to share child-rearing responsibilities.[80]

Communication challenges, psychological and communicative distance, emotional numbness, insecurity, and difficulty feeling connected are components of the reintegration period of a post-deployment.[81] Lastly, months after the deployment, the final stage sets in with the SM and spouse resetting new daily routines. The cycle begins again with the end of the final stage, signifying a pre-deployment phase.[82] “Since 9/11, 2.77 million service members have served on 5.4 million deployments. 86 percent deployed were enlisted; On average, deployed personnel were under 30 years old; more than half were married, and about half had children at the time of

[79] Peck, et al., "Talking about Mental Health: Dilemmas US Military Service Members and Spouses Experience Post Deployment,"102.

[80] Drew et al., “This Gradual Swing Back into Us,” 1948.

[81] Peck, et al., "Talking about Mental Health: Dilemmas US Military Service Members and Spouses Experience Post Deployment," 91.

[82] Drew et al., “This Gradual Swing Back into Us,” 1949.

the deployment. The average length of deployment varies across the services; multiple deployments are not uncommon."[83]

Reintegration of the service member and their family after deployment is an essential stage of military life and can either "strengthen or weaken family ties and family system functioning."[84] In a recent study examining active-duty military families, the authors O'Neal et al. point out, "Reintegration can thwart or support family outcomes depending on the positive and negative aspects of the reintegration process, such as the family's connection and ability to handle conflict that arises."[85] Since 2001, there have been 3.3 million individual deployments.[86] According to recent research that surveyed military spouses, "Spouses reported that the time surrounding their husbands' return was one of the great transitions, often accompanied by stress."[87] Creating opportunities for military SMs to connect with their family after deployment is essential.

Military Families Post-Deployment

In a recent qualitative study examining 16 female spouses of the United Sates Army SMs post-deployment, spouses reported some issues with SMs reintegrating with children. Spouses mentioned that the time surrounding their husbands' return was one of the significant transitions,

[83] Jennie W. Wenger, Caolionn O'Connell, and Linda Cottrell, "Examination of Recent Deployment Experience Across the Services and Components," Santa Monica, CA, *RAND Corporation*, (2018): https://www.rand.org/pubs/research_reports/RR1928.html.

[84] Catherine Walker O'Neal et al., "Vulnerability and Resilience within Military Families: Deployment Experiences, Reintegration, and Family Functioning," *Journal of Child and Family Studies* 27, no. 10 (10, 2018): 3252.

[85] O'Neal et al., "Vulnerability and Resilience within Military Families: Deployment Experiences, Reintegration, and Family Functioning,": 3252.

[86] Alicia Gill Rossiter, and C. G. Ling, "Building Resilience in US Military Families: Why it Matters," *BMJ Military Health* 168, no. 1 (2022): 91.

[87] Drew et al., "This Gradual Swing Back into Us," 1953.

often accompanied by stress."[88] Families who struggled to reconnect the most had a SM diagnosed with PTSD. One in five military personnel have PTSD, and many veterans do not receive treatment. [89]

The transition time following deployment is crucial in determining family roles and reintegrating SMs into family life. Focusing on the time of transition could benefit military families. Army spouses have indicated that transitioning from soldier to father can be challenging. The non-SM spouses also experience a transition in relinquishing household responsibilities and sharing them with their SM. These same spouses indicated that a 'mindset" transition was needed for the SM to reintegrate with their family successfully.[90] Providing direction for military SMs to transition into household responsibilities post-deployment is essential.

In the qualitative study of female military spouses, it was found that many spouses felt their husbands were not patient with their children. Some confided that the SM, struggling to bond with their children post-deployment, would "withdraw or push too hard to be accepted" if they felt rejected. SMs with PTSD were more disengaged from parenting than others. Many mothers expressed having the brunt of taking care of the children, and that often, their spouse with PTSD had to separate or cool off.[91]

Reintegration issues reported by spouses include children being "clingy" to mothers because they were more accustomed to them, believing that only mom was in charge, and challenging dads' authority. Spouses mentioned that sharing household responsibilities was more

[88] Drew et al., "This Gradual Swing Back into Us," 1953.

[89] Ibid., 1959.

[90] Ibid., 1955.

[91] Ibid., 1958.

manageable than sharing parenting activities, especially if the military service member would soon deploy again. Issues included challenges with letting go of control, routines that the spouse already established, and trusting the service member to set limits for their child.[92]

Family communication researchers have studied the various obstacles in communication amongst military families, which may include conflict, topic avoidance, stress, coping, and relational problems.[93] Topic avoidance is a frequent problem in military families, especially compared to civilian couples. When families are unwilling to discuss topics, they are often less likely to seek support.[94] Often, SMs try to protect their family from the burden of their mental health issues that have resulted from deployments and PTSD.[95]

Trauma and Mental Health of Military Service Members and their Families

Post Traumatic Stress Disorder

Trauma can reach numerous people in an assortment of ways. Post Traumatic Stress Disorder is the result of trauma. “A person with PTSD may have intrusive thoughts, nightmares, and flashbacks of past traumatic events. Symptoms may include avoiding reminders of the trauma, “hypervigilance,” sleep disturbances, changes in thoughts and mood, and quickly becoming aroused or angry. These symptoms may lead to social, occupational, and interpersonal

[92] Drew et al., "This Gradual Swing Back into Us," 1957.

[93] Brandi Frisby, Kerry Byrnes, Daniel Mansson, Melanie Booth-Butterfield & Meagan Birmingham, “Topic Avoidance, Everyday Talk, and Stress in Romantic Military and Non-Military Couples,” *Communication Studies*, 62:3, (2011): 243.

[94] Ibid., 243.

[95] Brittnie Star Peck, and Erin Sahlstein Parcell, "Talking about Mental Health: Dilemmas US Military Service Members and Spouses Experience Post Deployment," *Journal of Family Communication* 21, no. 2 (2021): 91.

problems.[96] Providing coping methods for families affected by symptoms is essential. According to surveys of music therapists at VA facilities, several music therapy interventions have proved successful in treating PTSD, which include music-making alone and in groups, listening to music, and composing. The instruments typically used in this treatment are drums, percussion instruments, guitar, keyboard/piano, and voice.[97]

In 2001, approximately 20% of SMs returned from deployment with PTSD, with 36.5% being married with dependent children (in 2015).[98] Potential psychological problems can arise in SMs post-deployment, and having children can increase these problems. Research suggests that SMs with children are more likely to receive "a new PTSD diagnosis compared to Veterans without children."[99] Research also suggests that PTSD can cause severe problems between the SM and their family. These relational conflicts can also cause an "increased risk for psychosocial problems in military children."[100] Even though there is ample research on PTSD and its effects on the family, there is not enough research on PTSD and its impact on "parenting attitudes and behaviors in SMs and their partners."[101] PTSD can contribute to "poorer parental functioning, more inconsistent discipline, poorer supervision, less positive engagement, and more coercive

[96] Bolette Daniel Beck et. al. "Music Therapy Versus Treatment as Usual for Refugees Diagnosed with Post-Traumatic Stress Disorder (PTSD): Study Protocol for a Randomized Controlled Trial," *Trials*, May 30;19 (1) (2018): 5.

[97] Rebecca Vaudreuil, ed., *Music Therapy with Military and Veteran Populations*, (London: Jessica Kingsley Publishers, 2021), 82.

[98] Sarah Giff, Keith Renshaw, and Elizabeth Allen, "Post-Deployment Parenting in Military Couples: Associations with Service Members' PTSD Symptoms," *Journal of Family Psychology* 33, no. 2 (2019): 166.

[99] Giff et al., "Post-Deployment Parenting in Military Couples," 166.

[100] Ibid., 166.

[101] Ibid., 166.

behavior."[102] Being sensitive, having empathy, and being flexible are critical elements of parenting and may not be as easy for families coping with PTSD.[103]

Secondary Post Traumatic Stress Disorder

Secondary PTSD is when people in a close relationship with a person diagnosed with PTSD begin to show similar symptoms of PTSD. According to the National Collaborations Center for Mental Health, family members can be affected by PTSD.[104] An interview by the National Collaborating Centre for Mental Health found that military spouses expressed concern about their husbands being distant and pulling away.[105] In the same study, a military spouse expressed, "PTSD not only affects the individual suffering, but it can also have dreadful consequences for those nearest and dearest to the sufferer."[106] Research is lacking in examining interventions for children and adolescents whose parents have PTSD. PTSD can affect the person who has experienced trauma and all relationships, particularly their family.[107]

In a study investigating the relationship between war-zone-related PTSD and its effects on the father-child relationship, avoidance and numbing were at the forefront of creating relational problems between father and child.[108] PTSD symptoms after returning from a

[102] Giff et al., "Post-Deployment Parenting in Military Couples, 167.

[103] Ibid., 167.

[104] National Collaborating Centre for Mental Health. Post-Traumatic Stress Disorder: *The Management of PTSD in Adults and Children in Primary and Secondary Care*. (Place of publication not identified: Published by Gaskell and the British Psychological Society, 2005), 3.6.

[105] Ibid., 3.4.1

[106] Ibid., 3.4.2.

[107] Drew et al. "This Gradual Swing Back into Us," 1959.

deployment can affect the family through adjustment issues and parenting challenges. Often, the SM lacks positive interaction with their children. Research on National Guard fathers with PTSD symptoms revealed that the fathers carried these challenges into the home one-year post-deployment.[109]

Traumatic Brain Injury

Traumatic brain injury (TBI) or mild traumatic brain injury (MTBI) adversely affects military families and negatively impacts parenting. TBI is an injury that many military personnel and veterans experience. "During the period from 2000 to 2021, more than 453,000 military personnel were diagnosed with TBI for the first time; this number does not include service members diagnosed with a repeat injury."[110] Sleep disturbances, headaches, problems with memory and attention, and mood changes characterize TBI. On average, 50% of those who suffer from TBI report sleep disturbances to be severe and include problems falling asleep, frequently waking up during the night, and feeling drowsy during the daytime.[111] Communication challenges are familiar to the military and veterans with TBI, especially in cases with blast exposure.[112] TBI is also associated with depression, anxiety, and irritability.[113] Other

[108] Ayelet Meron Ruscio, Frank W. Weathers, Lynda King, and Daniel King, "Male War-Zone Veterans' Perceived Relationships with their Children: The Importance of Emotional Numbing," *Journal of Traumatic Stress* 15, no. 5 (2002): 252.

[109] Ellen DeVoe, Tessa Kritikos, Ben Emmert-Aronson, Kaufman Kantor Glenda, and Ruth Paris, "Very Young Child Well-being in Military Families: A Snapshot," *Journal of Child and Family Studies* 27, no. 7 (07, 2018), 2139.

[110] Leanne Knobloch, and Bryan Abendschein, "Traumatic Brain Injury and Relationship Distress During Military Deployment and Reunion," *Family relations.* (2023): 2.

[111] Henry Samuel Babu et al., "Compounding Effects of Traumatic Brain Injury, Military Status, and Other Factors on Pittsburgh Sleep Quality Index: A Meta-Analysis," *Military Medicine* 187, no. 5-6 (2022): e589, e590.

[112] SE Kuchinsky et al., Objective and Subjective Auditory Effects of Traumatic Brain Injury and Blast Exposure in Service Members and Veterans, *Front Neurol* (2020): 613.

risks associated with TBI are a more significant chance of dementia, higher unemployment, and substance abuse.[114]

The Effects of Traumatic Brain Injury on the Military Family

The effects of TBI can be challenging for military families. “Children of TBI-affected parents have described feelings of loss as well as isolation and loneliness, after the TBI incident.”[115] Recent research on relationship distress for SMs with TBI and mild TBI indicates significant marital problems. Survey results specified approximately 50% of married couples reported marital dissatisfaction after a TBI. Married couples reported problems in "adjusting to personality changes, irritability, and volatility within the relationship.”[116] This same study indicated a relatively large divorce rate following a TBI with approximately 22%.[117]

Family disruptions are evident in military families with SM having TBI. A recent study examining relationship satisfaction among military spouses with SM having MTBI or PTSD found that "poor parenting competence, family functioning, and SM-child relationship quality were reported. Military families could benefit from family and couples' interventions that have

[113] Rael Lange et al., "Long-Term Neurobehavioral Symptom Reporting Following Mild, Moderate, Severe, and Penetrating Traumatic Brain Injury in US Military Service Members," *Neuropsychological Rehabilitation* 30, no. 9 (2020): 1762.

[114]Knobloch, “Traumatic Brain Injury and Relationship Distress During Military Deployment and Reunion,” 2.

[115] “Privacy Policy," Privacy & Terms, Google, last modified November 4, 2030, file:///C:/Users/Heather%20Hannock/Downloads/25380.pdf.

[116] Leanne Knobloch, “Traumatic Brain Injury and Relationship Distress During Military Deployment and Reunion,” 2.

[117] Ibid., 3.

been effective in improving military family functioning."[118] TBI, MTBI, and PTSD can take a toll on healthy family functions and relationships.

Suicide in the Military

The risk of suicide often involves psychiatric disorders, gender, hopelessness, impulsiveness, personal and family history of suicidal behavior, and childhood abuse.[119] The toll of SM suicide deaths are on a steady increase.[120] Combat exposure and PTSD are risk factors for veteran suicide. Studies show that there are effective coping strategies for potential suicide in veterans. Some of these coping strategies include, "belongingness, unit cohesion, social support, religion, spirituality, and sense of purpose."[121]

Suicide Prevention

Research on suicide prevention indicates that having a reason for living (RFL), may be a preventive method to suicide.[122] Ongoing feeling of loneliness can potentially contribute to suicidal behavior. To mitigate chronic loneliness, social engagement and connectivity should be encouraged.[123] In a recent study examining RFL in military and veteran populations, found, "two

[118] Tracey Brickell et al., "Relationship Satisfaction among Spouse Caregivers of Service Members and Veterans with Comorbid Mild Traumatic Brain Injury and Post-traumatic Stress Disorder," *Family Process* 61, no. 4 (2022): 1535.

[119] Camélia Laglaoui Bakhiyi, Raffaella Calati, Sébastien Guillaume, Philippe Courtet, "Do reasons for living protect against suicidal thoughts and behaviors? A systematic Review of the Literature," *Journal of Psychiatric Research* Volume 77, (2016): 92.

[120] Ugur Orak et al., "The relationship between combat exposure and suicide risk in U.S. military veterans: Exploring the Role of Posttraumatic Stress Symptoms and Religious Coping", *Journal of Affective Disorders*, Volume 341, (2023): 77.

[121] Ibid., 78.

[122] Bakhiya et al., "Do reasons for living protect against suicidal thoughts and behaviors?" 92.

[123] I. Testoni, Piol S, De Leo D. Suicide Prevention: University Students' Narratives on Their Reasons for Living and for Dying. Int J Environ Res Public Health. 2021 Jul 29;18(15): 2.

reasons for living, survival and coping beliefs and responsibility to family, were associated with decreased suicidal cognitions."[124] Low self-esteem is also recognized as contributing to suicidal ideation. Building self-esteem and resiliency may encourage RFL.[125]

Risk Factors for Military Children

Risk factors associated with the military child and their parent's deployment cycle include "increased depressive symptoms, suicidal ideation, substance use, and lowered academic engagement and achievement."[126] More frequent deployment cycles tend to have a more significant bearing on negative risk factors. Military children also face challenges during the reintegration period after a deployment. Several experiences may lead to negative risk factors, such as frequent family moves and unhealthy parenting. Many military families are required to move every two to three years. Frequent changes in teachers and schools can adversely affect academics. Relationship problems between the SM and their spouse can negatively impact parenting.[127]

Other risk factors for the military child include "greater likelihood of physical injury, higher prevalence of diagnosed mental health disorders, increased depressive symptoms and suicidality, decreased engagement in school and poor academic performance, increased recent and lifetime use of substances, experiences of violence and victimization, and disrupted

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[124] David C. Rozek et al., "The Protective Role of Reasons for Living on Suicidal Cognitions for Military Affiliated Individuals with a Positive PTSD Screen in Primary Care Settings," *Journal of Affective Disorders* 292, (2021): 433.

[125] Josephine M. Paasila, Evelyn Smith, Maysaa Daher, and Grahame K. Simpson, "Reasons for Living, Positive Psychological Constructs and their Relationship with Suicide Ideation in People with Moderate to Severe Traumatic Brain Injury: A Cross-Sectional Study," *Neuropsychological Rehabilitation* 32, no. 8 (2022): 2125.

[126] Kathrine S. Sullivan et al., "Mental Health Outcomes Associated with Risk and Resilience among Military-Connected Youth," 508.

[127] Ibid., 509.

attachment relationship."[128] Resiliency programs can mitigate risk factors that military children face. There are resiliency programs currently offered to military families. The Department of Defense (DoD) provides several youth programming options for military children aged 6 to 18, however, not all military families are utilizing these programs, not all families are aware of these programs and more programs should be made available.

Resiliency Programs

Families Overcoming Under Stress (FOCUS) is an intervention program for the resiliency and psychological health of military families. A recent FOCUS study indicated the importance of "developing and evaluating preventive interventions to reduce psychological health risk and to promote resilience and positive coping in at-risk military families and children."[129] Healthy parenting and family interactions can be a preventative measure for military families. Families need to gain experiences building and practicing skills that can aid in "positive parenting, parent–child relationships, and individual and family coping."[130] These experiences and opportunities can help build "behavioral and emotional regulation in children."[131] According to a FOCUS intervention development team, there are four core elements to providing intervention for military families; "resilience skill building: learning and

[128] Sullivan et al., "Mental Health Outcomes Associated with Risk and Resilience among Military-Connected Youth," 509.

[129] Patricia Lester MD., et al., "Evaluation of a Family-Centered Preventive Intervention for Military Families: Parent and Child Longitudinal Outcomes," *Journal of the American Academy of Child and Adolescent Psychiatry* 55, no. 1 (2016): 14.

[130] Ibid., 15.

[131] Ibid., 14,15.

practicing key skills, including communication, problem-solving, goal setting, emotional regulation."[132]

Military child intervention programs also exist in youth programming opportunities. The DoD provides several youth programming options for military children aged 6 to 18. These programs are offered on military installations and communities and include approximately 140 youth and teen centers. [133] These centers "provide educational and recreational programs designed around character and leadership development, career development, health and life skills, and the arts, among others."[134] Other organizations that DoD has either partnered with or contracted include Boys & Girls Clubs of America (BGCA), Big Brothers Big Sisters, 4-H, Young Men's Christian Association (YMCA), the Department of Labor summer employment program, USA Girl Scouts Overseas, and BGCA-affiliated Youth Centers.[135]

Creative Forces: NEA Military Healing Arts Network is an "initiative of the National Endowment for the Arts in partnership with the US Departments of Defense and Veterans Affairs that seeks to improve the health, well-being, and quality of life for military and veteran populations exposed to trauma, as well as their families and caregivers."[136] In this program,

[132] Patricia Lester MD., et al., "Evaluation of a Family-Centered Preventive Intervention for Military Families: Parent and Child Longitudinal Outcomes," 15.

[133] National Academies of Sciences, Engineering, and Medicine. 2019. Strengthening the Military Family Readiness System for a Changing American Society. Washington, DC: The National Academies Press: 141. https://doi.org/10.17226/25380.

[134] Ibid., 141.

[135] Ibid., 142.

[136] "Privacy Policy," Privacy & Terms, Google, last modified November 4, 2023, Creative Forces: NEA Military Healing Arts Network | National Endowment for the Arts.

creative arts therapy is offered at select clinical sites to promote the "health, well-being, and quality of life for military service members, veterans, and their families and caregivers."[137]

Support for the military SM includes caring for their family's well-being. In a publication by the U.S. army office of the Surgeon General, it states, "Military families play an important role in recruitment, retention, and commitment to the combat mission. Even good soldiers distracted by family concerns do not make effective soldiers. Family issues affect individual and unit readiness and function as a protective factor in preventing combat stress reactions."[138]

Parenting

Building perceived self-confidence in SMs' parenting is essential. SMs need to understand the developmental stages of young children to parent effectively. In a recent qualitative study, "bivariate and multivariate analyses conducted for service members provided evidence of a significant relationship between dysfunctional parenting, child behavior problems, and PTSD symptom severity."[139] Parenting with emotional numbing and avoidance can lead to "reduced responsiveness, inconsistent parenting, insensitivity and rejection of the child."[140]

A review of 100 studies evaluating "psychological and biological variables among children of parents with PTSD" indicated that a parent's PTSD symptoms can affect a child through the following areas, "internalizing-type problems, general behavioral problems, and

[137] "Privacy Policy," Privacy & Terms, Google, last modified November 4, 2023, Creative Forces: NEA Military Healing Arts Network | National Endowment for the Arts.

[138] Military Psychiatry: Preparing in Peace for War by U.S. Army. Office of The Surgeon General. Borden Institute (1994), Military Psychiatry: Preparing in Peace for War : U.S. Army. Office of The Surgeon General. Borden Institute: Free Download, Borrow, and Streaming: Internet Archive, 28.

[139] DeVoe, et al., "Very Young Child Well-being in Military Families," 2145.

[140] Ibid., 2145.

altered hypothalamic-pituitary-adrenal axis functioning."[141] "Family hostility" and "parental disengagement" were key factors, and "avoidance and numbing" were seen as problems that could negatively impact parenting.[142] Parenting is a critical factor in healthy families and military families often have to navigate parenting from afar or one parent primarily doing the parenting while the other is deployed. Due to these unique circumstances, military families may require additional support and resources to grow in healthy family relationships and healthy parenting especially in situations where one parent is suffering from PTSD.

Healthy parenting is essential to improving military family functioning and perceived relationships. According to a US Defense 2018 report, 40% of the armed forces military are parents.[143] Effective parenting includes "limit setting, skill encouragement, positive involvement, monitoring, and problem-solving."[144] Children need their parent's attention, and their parents need to respond quickly to their child about their feelings and behaviors. Attention and adequate response to a child's needs set a healthy foundation for parenting.[145] Issues in co-parenting may also affect healthy parenting and then, in turn, affect the child. The relational conflict within the marriage is a cause for poor reintegration following a deployment when the symptomatic PTSD SM and spouse are not having healthy interactions. A recent study revealed, "Families of veterans with PTSD are more likely to exhibit severe problems with parenting skills (54.7% in

[141] DeVoe, et al., "Very Young Child Well-being in Military Families," 2139.

[142] Ibid., 2139.

[143] Kathrine Sullivan, Stacy Ann Hawkins, Tamika Gilreath, and Carl A. Castro, "Mental Health Outcomes Associated with Risk and Resilience among Military-Connected Youth," *Family Process* 60, no. 2 (2021): 507.

[144] Abigail H. Gewirtz, James Snyder, Osnat Zamir, Jingchen Zhang, and Na Zhang, "Effects of the After Deployment: Adaptive Parenting Tools (ADAPT) Intervention on Fathers and their Children: A Moderated Mediation Model," *Development and Psychopathology* 31, no. 5 (12, 2019): 1838.

[145] Ibid., 1838.

PTSD group vs. 17.3% in non-PTSD group).”[146]

Military children face a multitude of challenges within their homes, necessitating interventions to mitigate risk factors. Creating resources that allow military families to connect, bond, decrease dissociation symptoms, and foster shared experiences, goals, emotions, and responsibilities, while also providing opportunities for healthy parenting, is of paramount importance. The Suzuki Triangle, with its unique attribute of encouraging parents to co-teach and actively engage in their children’s learning, thereby establishing a healthy learning environment that is positive, encouraging, and supportive, could be a beneficial intervention for military families.

The Suzuki Method of Teaching

Dr. Shinichi Suzuki (1898-1998) was a music educator and founder of the Suzuki method. He believed that children “could learn music just as they learned to speak—starting when they were very young and hearing music all around them. He believed that all children have the talent to learn if they are taught well by loving parents and teachers. These were very unusual ideas at that time.”[147] He began a Talent Education Institute emphasizing "beautiful heart and tone." He believed, “Ability = Knowledge + 10,000 practice."[148] Repetition is an essential factor in the Suzuki method. Shinichi Suzuki would often suggest, "Another 10,000 times."[149] The teaching method emphasizes the quality of "tonalization," a Suzuki word

[146] DeVoe at al., “Very Young Child Well-being in Military Families: A Snapshot,” 2139.

[147] “Privacy Policy,” Privacy & Terms, Google, last modified February 17, 2024, https://suzukiassociation.org/about/suzuki-method/.

[148] Helen Brunnet, “Every Tone Has a Living Soul’: Shinichi Suzuki,” *The Strad.* 132, no. 1577 (2021): 37.

[149] Ibid., 37.

comparing tone to "vocalization," often used in singing exercises. Suzuki believed that a beautiful tone overflowed from the person creating it, "beautiful heart." [150]

The Suzuki method begins first through training the parent. The parent learns the first piece of music before the child so that he/she can better facilitate practice and teaching the child at home in between formal lessons. The child does not learn how to play a piece of music until the parent has learned. Music education begins at infancy and inspiring the child to want to ask to play the violin by the parent or siblings having played first, and by daily listening to the pieces that are in the Suzuki method books is key to encouraging desire to learn.[151]

The Suzuki Triangle approach encourages family members to work collaboratively to learn how to play the violin. The Suzuki Triangle is defined in a recent article in the *American Suzuki Journal* as a "philosophy of music education based on Dr. Suzuki's commitment to the vital role that the parent plays as the home teacher."[152] In this method, the parent is actively engaged and contributes to the child's learning process. This parent/child relationship evolves as the child matures; the parent will become more of an encourager and advocate. The parent works with the child and teacher to accomplish the goal of learning an instrument through motivation, encouragement, setting goals, and helping the child acquire skills and self-evaluate.[153] In the Suzuki music approach, there is an initial orientation where parents learn basic music knowledge to be effective at helping the child at home. Concepts of the Suzuki method include the "social-

[150] Helen Brunnet, "Every Tone Has a Living Soul': Shinichi Suzuki," *The Strad.* 132, no. 1577 (2021): 37.

[151] "Privacy Policy," Privacy & Terms, Google, last modified February 17, 2024, Suzuki, Excerpted from Nurtured by Love: 95-96. Instilling the Desire to Learn | Suzuki Association of the Americas.

[152] Winifred Crock, "The Evolution of the Suzuki Triangle," *American Suzuki Journal*, Volume 49 #3 (Spring 2021): 42.

[153] Kathleen Einarson et al., "The Parent Role in Suzuki Music Lessons: Experiences and Perspectives Shared by Novice Suzuki Parents," *Music Education Research*, (2022): 648.

ecological beliefs that every child can learn and achieve excellence if they are provided with a supportive environment, that active parent support is essential, and that the development of personal character is even more important than musical expertise."[154]

Learning the violin through the Suzuki Triangle approach is more than learning music. Its central theme is character first, ability second.[155] In a recent survey of parents who participated in the Suzuki Triangle approach, one mother stated, "It's not about the violin for me. It's about character, it's about recognizing consistent pursuit of anything can lead to resilience."[156] This same parent expressed the importance of fostering a sense of ownership in their child and helping them to feel empowered for their music learning process.[157] In this same survey of parents who experienced the Suzuki Triangle approach, the majority expressed the "significant meaning and reward from the time they spent to support their child's musical growth."[158] Other perspectives from the survey viewed the method as a special connection between child and parent, an excellent outlet for bonding and sharing experiences and goals, and a sense of fulfillment.

The Suzuki Triangle approach encourages the well-being of the child through parental engagement emphasizing that environment affect's ability. The parent helps to motivate, encourage, and set goals for the child in their journey to learning how to play an instrument

[154] Einarson et al., "The Parent Role in Suzuki Music Lessons," 639.

[155] Shinichi Suzuki, W. Suzuki., *Nurtured by Love: The Classic Approach to Talent Education*. (Van Nuys, CA: Alfred Music Publishing, 1969 [1981]), 64.

[156] Einarson et al., "The Parent Role in Suzuki Music Lessons," 644.

[157] Ibid., 644.

[158] Ibid., 645.

focusing on character first and ability second. The Suzuki Triangle approach to music education appears likely to be effective in connecting military SM parents, and MC.

Summary

Thanks to digital scans, we now are beginning to have a deeper understanding of how music affects our brain activity. The studies are clear: music can help with anxiety, hormone regulation, oxytocin production, neuroplasticity, brain recovery, stress relief, coping, emotional regulation, and resiliency. Whether listening to music, learning an instrument, or participating in group music-making, these activities can all contribute to healing the structural damage of the hippocampus and boost oxytocin production directly benefiting those suffering from PTSD, TBI, and MTBI.

Connecting after a SMs deployment can be challenging for military families, especially those families affected by PTSD, TBI, or MTBI. These families need intervention strategies. With suicide being a problem in the military, finding reasons to live becomes essential for healthy functioning in military communities. Social music-making and parental engagement may help provide a RFL for those who are affected by mental health issues through building positive self-esteem, coping skills, social connection, and resiliency. Creating opportunities for SM to engage in healthy parenting activities is essential. These activities should include "limit setting, skill encouragement, positive involvement, monitoring, and problem-solving."[159]

The insights gained from this research can help inform the development of effective support programs for military families and contribute to a better understanding of the unique

[159] Abigail H. Gewirtz, James Snyder, Osnat Zamir, Jingchen Zhang, and Na Zhang, "Effects of the After Deployment: Adaptive Parenting Tools (ADAPT) Intervention on Fathers and their Children: A Moderated Mediation Model," *Development and Psychopathology* 31, no. 5 (12, 2019): 1838.

challenges they face. Research into military family resiliency is essential. Although there are programs targeted to support military families, more program opportunities should be explored to encourage the perceived well-being of the MC and their interactions with their SM parent. Military families have many obstacles in reconnecting after deployments and away-from-home training and creating healthy environments for children through these unique challenges would help with resiliency. There are risks that military families face, and there are also opportunities that help mitigate these risks. Providing more opportunities specifically geared to parental engagement, connecting and bonding are essential. Military families need resiliency support and care.

Chapter Three: Methods

Participants

Following required IRB approval, four families were recruited from social media networking, e-mails, and meetings with chaplains, youth center coordinators, local schools, and Ombudsman's at four different military installations. Interested participants were emailed screening surveys. The eligibility criteria for volunteer participants were: (1) military families with a child aged between five and twelve years who were interested in learning the violin over the course of four weeks. (2) miliary families who have experienced the stresses of military life, i.e.: frequent parental travel/absences, parental illness and injury, frequent moves. (3) military SMs who were willing to accompany their child to violin lessons and oversee at-home daily practice sessions. The families consisted of seven volunteer MC participants and four volunteer SM participants. The ages of child participants ranged from five to eight years old. Each family had experienced the stresses of military life including frequent PCS, deployments, and away from home training. Service members were employed by the United States Airforce and the United States Army.

Design

After determining eligibility, parental consents and child assents were emailed to participants, signed, and returned before the first scheduled lesson. Both SM and MC completed a preliminary survey, a practice survey, and an exit survey. Music lessons were photographed and at the conclusion of each lesson, the details were reported. Music lessons were once a week over the course of four weeks, free of charge, and taught by a Suzuki trained violin teacher. Families attended weekly Suzuki violin lessons with the SMP working with the teacher, helping the child to learn violin, and build musical knowledge and ability. The SMP was responsible for

overseeing at-home practices, acting as an encourager and advocate for the child, and having a clear purpose and design for interacting with their child, while empowering the child with creativity, imagery, positive self-esteem, and a vehicle for self-expression.

Questions and Hypotheses

The research that was conducted was based on the hypothesis that the Suzuki Triangle, parent-teacher-child working collaboratively will benefit the military child by providing an opportunity to learn the violin through parental engagement with their SM parent resulting in improved perceived connectedness: improvement of perceived confidence/self-esteem and self-expression: and by improving perceived coping skills.

Setting and Materials

Participants received instructions on the violin in a private studio location that was safe, spacious, and welcoming. The researcher/teacher secured violins for participating children through a monthly rental contract at a local music store. Shoulder rests were provided by the teacher/researcher and distributed to each participating student. Three of the four SM participants had two participating children. Siblings sat quietly and watched while the other child received private instruction. The “Suzuki Method Book One,” and the musical recordings of the literature found in the method book were materials used in the lesson and at home during practice sessions.

Data Collection Method

Participants completed a preliminary survey, a practice survey, and an exit survey generated by the researcher. These surveys are in the appendix section of this thesis. Questions were set-up to determine background information about participants, including what military resources/interventions they had already experienced, parental engagement opportunities, and

questions to find out about their participation in the study. The completed surveys were stored in a locked password protected computer that only the researcher had access to. Data was also collected through observations, photographing lessons, informal questioning throughout the lessons and questions asked via text, email, and Instant Messaging.

Data Analysis

Several survey questions were on a scale that followed the format as the example: Extremely improved, very improved, improved, slightly improved, not improved. The researcher entered results from these questions into charts found in chapter four of this research. Most survey questions were open-ended and required participants to fill in their answers. The researcher transferred participants' answers into the survey results of chapter four of this research, along with the data gathered through interviewing, texting, emailing, and Instant Messaging.

Summary

With the Suzuki Triangle approach, the teacher, SMP, and child will work together with shared goals and responsibilities of providing support for the military child by teaching them how to play the violin. The Suzuki teacher will help establish the role of the SM as a co-teacher so they can engage in their children’s daily routine of practicing the violin. Throughout the study, participants will complete surveys to determine if the Suzuki method can benefit the MC and encourage perceived connectedness, quality one-on-one time, coping skills, positive self-esteem, and a vehicle for self-expression.

Chapter Four: Findings

This research provides observations from case studies of teaching violin through the Suzuki method and survey findings from volunteer participants. Service members and child participants completed a preliminary, practice, and exit survey. These surveys indicated that learning the violin through the Suzuki Triangle benefited these military families. This research created an opportunity for parental engagement that encouraged quality time and helped the MC to feel supported and encouraged. Learning the violin provided an intervention for the MC, who has experienced the stresses of military life, by providing an experience that encouraged self-expression, positive self-esteem, and coping skills.

Case Study Descriptions

Wilson Family

The military SM, George (pseudonyms will replace actual names throughout), has served his country for ten years and seven months. He reported six PCS moves during the lifetime of their oldest child, Jackson's (age 8) life. He has been away from home for ten temporary additional duties (TAD) ranging from one to seven weeks. He has utilized two military family intervention resources: Military One Source and Military Family Life Counseling. In a preliminary survey given out before Suzuki violin lessons began, George indicated that the activities that he engages in routinely with his children are reading a book before bedtime, telling stories, playing games, and watching movies together, and that he was delighted with these activities. In this survey, He listed military duty hours and work demands as obstacles to connecting with his children. The estimated time Geroge interacts with his children daily is 1-2 hours. His preliminary survey indicated that he was satisfied with the amount of perceived quality time he spent with his children.

In the child preliminary survey, Jackson, age eight, reported engaging in dance, tumbling, swimming, and piano outside of school. The military intervention programs he has participated in are youth sports and fitness programs and military life counseling. He reported that those military interventions improved his perceived well-being significantly. Jackson reported remembering two times that his dad was away from home for military training. Jackson reported that he was satisfied with the quality of time he spent with his SM father. Perceived advantages of being a MC noted by Jackson in the preliminary survey were that his dad gets promotion ceremonies that he gets to participate in and that there are fun military events. Disadvantages include dad having to work late and not being able to spend much time with him, having to move a lot, and having to make new friends.

Caleb, age six, currently enjoys soccer, basketball swim, chess, golf, and gymnastics as extracurricular activities. He has participated in the same military intervention programs as his brother, Jackson. He reported that those programs extremely improved his perceived well-being. He remembers his SMP being away from home for military trainings for eighteen days. He noted that his SMP spends one-two hours a night with him and together they play soccer, sometimes read books at bedtime, play games, and watch movies.

Week 1

George accompanied his two sons, Jackson, and Caleb to private Suzuki violin lessons. One child received private instruction while the other sibling sat nearby, listening, and watching. The teacher made footprints outlining the children's feet with magic markers on poster board. The foot markings were to keep the child in place during the lesson and to set up healthy body alignment from the ground up. The first lesson emphasized proper instrument care and identifying instrument parts. The teacher guided the children and father through the experience

of finding a natural, tension-free placement of the violin on the back of the shoulder and a relaxed bow hand. Rhythmic exercises found in the “Suzuki Volume One” method book to prepare for “Twinkle Variation A” were practiced without the instrument, using only the bow on the shoulder with the teacher guiding the bow hand.

The teacher frequently checked in with George to ensure he understood the learning goals for his children so that he could oversee at-home practice during the week. This was achieved by instructing George on technical aspects of how to play the violin through teacher demonstration and child demonstration and by providing an opportunity for him to experience how to execute the technique being established, in this case, George was given a lesson on the proper bow hand as if he were the student. The teacher requested that George keep a friendly encouraging demeanor and kind encouraging words to his children during the lesson. George also took notes on what to practice with his children at home. The lesson concluded with a thank you bow.

Week 2

In the subsequent lessons, students sang through "Twinkle, Twinkle Little Star Variations," starting with Variation A (this is the first piece of music in the “Suzuki Volume One” method book, arranged by S. Suzuki, which begins with five rhythmic variations on the theme, "Twinkle, Twinkle, Little Star"). Ear training is a vital concept of the Suzuki method. The teacher reminded the student and parent of the importance of daily listening to the repertoire in the method book at home, which is an essential factor in the child's progress. Relaxed positions of the left and right hand were carefully crafted to accommodate healthy playing and good technique.

Week 3

Jackson and Caleb enthusiastically began their third violin lesson, reporting that practicing throughout the week with their dad was great. Jackson began his lesson working toward a relaxed bow hand with all fingers curved and the natural weight of his fingers on the bow at the frog without grabbing or squeezing. Avoidance of the wording "bow grip" was clearly emphasized to the parent -so that the child can relax fingers instead of gripping. The instruction given to Jackson was to allow the teacher or parent to guide him in the bow with the rhythm pattern found in "Twinkle, Twinkle Little Star Variations," focusing on Variation A. The bow was placed on the student's left shoulder, and the violin was not used in this exercise. Initially, this instruction was a challenge because the child wanted to "do it by himself." The child "doing it by himself" usually meant that the fingers tensed, and gripping began to set in. The teacher had to remind him to allow the muscles of his hand to release and to relax the fingers. They worked toward suppleness, buoyancy, and release of joints and knuckles. The teacher directed the movement of the bow gently, touching the underneath side of his right forearm at the balance point.

The teacher continued to place the instrument for him on the backside of his shoulder, but toward the end of the lesson, Jackson practiced placing the instrument on the back part of his shoulder by himself. Adding this new task caused his head and neck to be tilted to an unnatural position forward. The teacher reminded him of proper head placement and angle for a more natural and healthy position of the body. The teacher also reminded him to center forward with his belly button toward the teacher directly in front of him. He tended to twist his torso away from the center alignment of his body.

His brother Caleb also had to practice centering forward, especially considering his left shoulder, which tended to rotate to the left. A slight space between the violin and neck was encouraged so that the child or parent did not jam the instrument into the space between the shoulder and chin. The teacher directed the child to place his chin in the chin rest instead of the tailpiece. The practice instruction directed to the parent and child was to allow the parent to place the instrument on the shoulder this week during practice sessions (instead of the child). Caleb needed more reminders to keep on his foot chart. Both boys could sing "Twinkle Variation A" alone, proving that daily at-home listening was happening.

Week 4

At the start of each lesson, and for all participating students and SMPs, the teacher inquires how at-home practice sessions have been going. In this case, George, Jackson, and Caleb respond that practicing throughout the week was good. Caleb demonstrated by relaxing his fingers onto the bow. He was eager to bow on his shoulder without the teacher helping to guide the bow. However, when given the opportunity, his fingers would tense and grab. The teacher had him try one group of four sixteenths and two eighth notes instead of him bowing several in a row. The instruction was to bow one Mis-si-ssi-ppi Riv-er (Caleb's preferred syllable to rhythm words), stop bowing, and check his fingers. This slowing down of material being practiced required focus, which was challenging for Caleb. Practice fast slowly is a technique used in the Suzuki teacher training courses. Practice the fast rhythm (in this case, four sixteenths and two eighth notes), but allow time to process between efforts. The teacher reminded Caleb that he was in control of his fingers and that he should pay attention to whether they were soft or tense. Caleb replied that he noticed they were "grumpy." This acknowledgment of tense fingers as

being grumpy helped the teacher make a game with the child comparing grumpy fingers to soft fingers. His father suggested to Caleb that he must use soft fingers when he pets his kitten.

Jackson could practice the open E and A strings to the "Bowing and Rhythm Exercises A" found as a preparation in the Suzuki method book. He tended to straighten his left pinkie on the bow. When the teacher pointed this out, he would curve the pinkie but straighten his thumb. There was a breakthrough when the teacher illustrated a dancer balancing the body's weight onto one leg and then shifting to the other. Because Jackson takes dance lessons, this imagery helped him. The teacher asked if he would balance the natural weight of his hand to his pinkie. This immediately promoted understanding for the child.

Forest Family

Steve has served his country for 16.5 years. He has had multiple deployments before his twin daughters were born and two deployments since their birth. At the time of the study, he was preparing for a third deployment. His family had not participated in a military intervention program in the past because he did not want to mix work with parenting- basically, he wanted to keep his children separated from the military. In his words, "disassociate." Although he often works late, he tries to spend two hours each evening with his children. Steve, Sarah, and Leah enjoy playing games and cooking together. He noted in his preliminary survey that he was satisfied with their quality time together.

Week 1

Sarah stepped out of the minivan with her sister Leah, and as if they were one person, they walked hesitantly shoulder to shoulder to meet the teacher and begin their first violin lesson. Their father, Steve, followed behind with the same look of confused hesitation about what his wife signed him up for. In later lessons, Steve informed the teacher that he had taken his girls to

hockey and soccer practices but never to a music lesson. Like the Wilson family's lesson, the lesson began with introductions and an explanation of the Suzuki method and the expectations of students and parents. The girls were seven years old and in the second grade. The teacher outlined their feet on a foot chart, which benefited Leah the most as she was prone to wiggling away. The girls' lesson included finding a natural, healthy violin placement on the shoulder and a natural, relaxed bow hand. Steve was attentive, took notes, asked questions, and videotaped throughout the lesson.

Week 2

Week two lesson scheduling began with some juggling of times and days in that the SM parent had to cancel at the last minute due to a work-related issue- Steve had to wait for an aircraft carrier to land; however, he was able to reschedule the violin lesson for the following day but could not make the lesson on time due to similar work-related issues. The children seemed hesitant as they reluctantly entered the studio to begin their second lesson. The teacher sensed that there may have been a transition that happened with learning a new instrument and having their dad oversee the at-home practice sessions. Nonetheless, the girls were well prepared for their lesson, and it was evident that Steve had helped them throughout the week.

Steve took initiative when he noticed the teacher could not place the violin on his daughter's shoulder because of her long-disheveled, strawberry-blonde hair that lay in a clump between the violin and shoulder. Steve immediately responded, jumped out of his seat, and said, "Oh the hair, I've made it a point to always put it in a ponytail before she practices." With one quick motion, he swept up her hair with his hands and pulled it into a ponytail so the teacher could continue the lesson. Finding the proper violin position on the shoulder was much easier after the father was actively engaged in the lesson. Additional lesson points included finding a

relaxed left- and right-hand technique. The teacher made a video clip and sent it to Steve for him to review for his practice sessions during the week.

Week 3

In the third week, the Forest family could not attend the lesson on time due to work-related issues that detained Steve. The teacher/researcher dedicated one evening a week to each family and did not schedule other lessons for these families. If lessons exceeded the expected time frame or work-related issues arose, the family could still attend the lesson.

Just as all the other siblings set in this study, Sarah and Leah alternated who had the first lesson while the other sister quietly watched; this has proved to be an interesting dynamic that has made the second student easier to teach because the sibling has watched the first lesson and already knows what to expect. This works very well for beginners and close-in-age siblings. The girls were prepared for their lesson, and it was evident that Steve had practiced with them during the week.

Sarah began by singing “Twinkle, Twinkle, Little Star Variations, Variation A,” she could complete this task without issue. She was ready to start bowing Pea-nut-but-ter Jel-ly (same rhythmic pattern as the Wilson family; however, this was Sarah's preferred syllable to rhythm words) by herself, without the teacher guiding her bow (the only child permitted to do this because of her readiness). She spent most of the lesson practicing without the violin and using the bow on her left shoulder. The teacher ensured she understood the path and direction of up and down bows (some students need clarification on this and reverse it). The teacher made sure that this was not an issue before going on. The bow hand was relaxed, and all fingers were curved. Sarah could move on to the new learning concept of playing the familiar rhythm on an open E string. The teacher guided the bow while the student formed a relaxed bow hand and

placed the bow on the E string and her left hand in the open string position. After practicing this, the teacher permitted the child to bow without the teacher guiding the bow. The teacher demonstrated the proper placement of the bow parallel to the bridge, and the desired sounding point/bow highway (where the bow was placed in relationship to the bridge and fingerboard) was pointed out.

With the new position of the bow on the string and not the shoulder, the student needed more time with the direction of the bow, making sure to start each rhythm pattern down bow. As the teacher worked through solutions to help Sarah center forward, her father noticed she was scrunching inward and told his daughter to open her chest and shoulders. This observation and parent engagement proved helpful to the lesson, and the child's posture immediately improved. As usual, the lesson ended with a thank you bow, and Sarah passed the violin to Leah (the girls could share violins because they were similar in size).

Leah is working on focus and keeping her violin secure and steady on her shoulder without wiggling around. Her focusing ability had improved from the week before, and she was able to stand still while the teacher counted to ten multiple times. Her lesson was divided between focus activities and exploring a relaxed bow hand while the teacher gently guided the bow onto the student's left shoulder. This lesson was shorter than her sisters', but it was longer than the week before, revealing that her attention span and focus ability are getting better. Leah tried to end the lesson before the teacher ended it by bowing several times to signal to the teacher that she wanted the lesson to be over. The teacher understood that her focus time was expanding and tried to stretch the lesson a little longer, without creating an atmosphere of learning that overburdened the child. Nurturing the child is an essential factor in Suzuki music lessons. The teacher suggested a practice tip for the parent: allow Leah to have a shorter practice session with

longer focusing exercises, with a break during her sister's practice time, and then come back to finish Leah's practice session.

Week 4

The scheduled lesson for the Forest family did not occur because the father, Steve, called to inform the teacher that on his way to the lesson, he received a phone call from work telling him that he had to return to work. He was able to reschedule for the following week. Leah began the lesson with coaxing from her father because she wanted her sister to have the first lesson. The girls did not bring their foot charts, so the teacher made a new one for them to stand. Leah stayed on her foot chart the entire time, and the teacher praised her for doing an excellent job. It was clear that Leah and her dad had been practicing. She secured the instrument with the natural weight of the head on the back of the shoulder with a few gentle reminders to tilt the head to the left.

Leah could make a relaxed bow hand with curved fingers and practice the known rhythm pattern of four sixteenth notes followed by two eighth notes on her left shoulder without the teacher guiding her bow. She succeeded in the preparation exercises at the beginning of the method book, bowing on an open E and an open A string to the same rhythmic pattern of four sixteenth notes followed by two eighth notes (this time with rests in between). Working to the child's ability, the teacher went on to “Twinkle, Twinkle Little Star Variation A” beginning with singing on a syllable of the child's choice. The child was able to demonstrate that she could sing the music. The teacher then demonstrated on her violin how to play the first line (this was a review of material already learned) and then the second line, which consisted of placing the 3rd finger on the A string to make the note D, the 2nd finger on the A string to make the note C# and the first finger on the A string to make the note B (in first position). Steve had already worked

with both children on the first line and previewed the third finger on the A string for them. The child began using the left hand to play the piece of music with the required fingered notes while the teacher moved the bow for the student. The father contributed to the lesson by reminding the child to rotate her elbow underneath the violin. It was helpful that he noticed Leah needing to rotate under more. The teacher reminded the student to also open down, a concept that the teacher had learned in a Suzuki teacher training course. The tip of the finger touches the string thumb side corner while the hand opens down toward the scroll.

After the child was comfortable with the left hand, the teacher allowed her to add the bow, with the teacher helping to guide the bow by lightly tapping the balance point of the right arm and tapping behind the right elbow to keep the arm level height in check and the bow parallel to the bridge. Before the last exercise, the teacher noticed the child wearing out. The teacher asked Leah to bring the violin to rest position. The coordination for children to bring the instrument to rest can be challenging. Steve reminded Leah of the steps, saying, " raise your bow overhead with the bow in line with the floor, then bring the bow arm down while using your left hand to remove the violin from your shoulder and tuck the instrument under your right arm." The child followed the directions on cue.

With the violin in a rest position, the teacher allowed the child to have a much-needed break. The teacher then clarified what else would be worked on in the lesson so that the child knew that the lesson did not last forever and that there was a clear stopping point. Knowing the ending point helped encourage the child to continue with the lesson. Some Suzuki teachers write the different musical tasks on a whiteboard, and the students erase them as they go.

Sarah's lesson was identical to her sister's; however, when it was time to demonstrate her ability to make a relaxed bow hand, she immediately grabbed the frog of the bow. Her father said

that this was something they were working on correcting. He said that his children played hockey with a rubber grip where the hands held the hockey stick. He noticed that the violin bow also had a rubber grip on the frog, and Sarah immediately wanted to grab onto it like a hockey stick. The teacher and student spent extra time releasing the tension, relaxing the fingers onto the bow, and experimenting with placing the bow hand further up the frog and away from the rubber grip.

Sanderson Family

John has been serving his country for twelve years. He has had seven deployments/training away from home and four since the birth of the participating child. The most extended deployment was three months. He and his family have experienced two change of duty stations. He has not participated in a military family intervention program before. He engages with his child through playing video games, Legos, and drawing. The obstacle he has noticed in connecting with his child is that his child has autism, and he must find ways to teach him. He estimated that he spends three hours a week and ten hours during the weekend interacting with his child.

Week 1

John stepped out of his large Ford truck, gathered his son Erick into his arms, and they entered the studio for their first-ever violin lesson. Erick, age 6, was excited to learn the violin. Because Erick is autistic, his language was at times, challenging to understand, but with enthusiasm, He uttered, "I like violin!" The teacher traced Erick's outline of his foot for a place to stand in front of her. His father, John, knelt to help Erick as necessary. It was clear that John was comfortable helping his son. During the lesson, John frequently held his son and encouraged him. Erick was sometimes more interested in Daddy's attention and affection than the violin lesson.

The teacher spent much of the lesson teaching Erick to balance the natural weight of the hand onto the bow without gripping and squeezing. The thumb was detached and hung beneath the bow as a starting point for creating a relaxed bow hand. Unfortunately, Erick did not leave with the same enthusiasm he had when he began his lesson. Following the thank-you bow, he exclaimed, "I don't want violin."

Week 2

Erick's mother enthusiastically messaged the teacher during the week, expressing that Erick and John had practiced well and that Erick was enjoying the violin more than his first encounter revealed. During his lesson with the teacher, Erick was able to work on his body alignment, securing the violin in a comfortable, natural place on the back of his shoulder. He continued working toward a relaxed bow hand.

Muscle engagement was problematic. The teacher tried not to discuss muscles but focused on natural weight and dynamic balance. There was a floppiness to how this child stood, and the same carried through to how he used his arms and positioned his neck and head. The teacher spent most of the lesson placing the violin on the back of Erick's shoulder and troubleshooting how to get the child to stand firm, center forward, and position the head in a natural but not floppy way so that the violin would not fall off his shoulder. The teacher tried to have Erick imagine his head was a bowling ball, hoping he would understand that his head needed to be weighted.

Erick frequently wanted to step away from his foot chart for hugs from Daddy. He also needed a short break where he sat down with his head in his lap, resting in silence. This is a method that Erick’s Special Needs teacher at his school uses with him, and his father suggested that Erick try it in the violin lesson as he noticed that his son needed a break from stimulants.

John’s suggestion and engagement positively contributed to the lesson. Returning to the lesson, Erick did not have the wiggles as much; however, he seemed to want more breaks.

Week 3

In this week's lesson, it was evident that the student and father practiced during the week. Erick did not have his foot chart, but the teacher outlined a new one for him, and he stayed on his chart the entire lesson. Ericks fingers relaxed naturally onto the bow, and he spoke the rhythm pattern easily. However, the child was unable to sing "Twinkle, Twinkle Little Star Variation A" (although he did listen to the recording during the week). There were challenges in understanding the difference between singing and speaking. The child spoke the rhythmic patterns of “Twinkle Variation A” while bowing on his left shoulder (with the teacher guiding the bow at the balance point).

This week, the head was much more weighted and able to almost secure the instrument under the chin; however, the head tilted forward, and the left shoulder revolved backward, which made it impossible to keep the violin steady on the shoulder. Much of the lesson was spent unlocking Erick's ability to keep the violin in a safe and natural place on his shoulder. Verbal cues such as left shoulder forward helped. The teacher angled the violin down toward his chin with the scroll up when placing the violin. The angled violin helped Erick's chin to contact the chin rest more effortlessly, and he would have the correct head placement but then tilt his head forward. His father had him push his head against his hand, which seemed to help with alignment; however, it only helped temporarily.

The teacher discussed getting water out of his ear after swimming and shaking his left ear over his left shoulder. The imagery of pretending to get water out of the ear worked momentarily. The correct head placement only came with his father gently holding his head in

the correct position. Erick practiced keeping the instrument under his chin with correct alignment until the count of five and then using his left hand at the instrument's body to take it off his shoulder and tuck it under his right arm.

Week 4

Erick slowly strolled into the studio with his head down. His father said that Erick was tired after a full day at school before Spring Break. Erick came into the studio and found a comfy place to curl up. The teacher allowed him to rest while she spoke with John about their family's upcoming travel plans and how practicing went this week. John mentioned that it was a very challenging week of practicing because Erick would come home tired, and he also was having a hard time at school. During at-home practice sessions John commented that Erick still could not keep the violin secure under his chin and on the backside of his shoulder.

The teacher called Erick over to his foot chart to begin his lesson. She asked Erick who his favorite superhero was, and the child responded, "Spiderman." The teacher told Erick he needed to be strong like Spiderman and keep his head from wobbling. The teacher also asked Erick to imagine that a spider web was pulling his left shoulder forward so that it would not turn back when the teacher placed the violin on his shoulder. The teacher placed the violin under Erick's chin onto the back of his shoulder, and he could hold the violin comfortably, keeping the head tilted to the correct angle and the instrument secure. This was a colossal breakthrough for Erick. He continued to practice placing the instrument himself and bringing it back to rest underneath his right arm.

It helped Erick to pretend the instrument was a bird (his idea). The teacher would remind him to allow the bird to land on the back of his shoulder before turning his head and placing the chin on the chin rest. The muscle strength needed to move the instrument from resting

underneath the right arm to moving it to his left shoulder and back to rest underneath the right arm proved challenging for Erick, but he became more and more comfortable with it as he practiced. At one point, he said, "The violin is heavy!"

Erick was able to better understand the correct head tilt after his father came behind him and gently held the head at an incorrect angle. Then, he gently held the head at the correct angle with his two hands. He spoke to the child about which angle the teacher was looking for. This parental engagement was very effective. For the remainder of the lesson, when the teacher said to tilt the head, Erick was able to tilt at the correct angle.

Erick could also demonstrate curved fingers only after the teacher reminded him that he controlled his body. The teacher had him straighten and bend his fingers (without the bow or violin in his hand) to help him experience the difference. The teacher had him turn a pretend doorknob to demonstrate curved fingers. The child finally had an "Ah Ha!" as he bellowed, "Like a chrysalis!" His dad said he was learning about chrysalis in a book he read with his mother. Somehow, thinking about the pinkie as a chrysalis immediately helped Erick curve the pinkie. When the lesson was finished, following the thank you bow, Erick excitedly said, "I love the violin!"

Taylor Family

Anne has been in the military for fifteen years. She represents the only female SM participating in this survey. Her husband is also active-duty military. Although she has not been deployed, she has undergone many temporary duties (TDY) that have taken her away from her five children multiple times throughout her career. She and her family have lived overseas and recently returned to the United States. In the past, she has utilized Child Youth Services (CYS) and daycare for her children, and she is unaware of any other military support programs offered

for her family. Her family enjoys spending time together, studying the Bible, and fishing. She noted in her survey that she is delighted with this quality time. She has worked at three different military bases that required moves. Her children participating are ages six and seven, and they have experienced two military moves, which took them overseas and then returning to the United States. Obstacles in connecting with her two participating children revolve around their limitations in speech, and both children are seeing a speech therapist. Anne has been able to telework to spend more time with her children. The Taylor family lives in temporary housing on a military post as they look for something more permanent.

Week 1

Five-year-old Sam needed time to warm up to the teacher and feel comfortable with her and his environment before joining the lesson. His mother, Anne, explained to the Suzuki violin teacher that Sam was in speech therapy, and he generally took some time to warm up to people before feeling comfortable enough to talk or engage. Sam was born overseas, and living in the United States was a new transition for him. Until Sam felt comfortable enough to participate, his mother, Anne, was instructed on how to play the violin. The Suzuki method frequently uses the strategy of teaching the parent first until the child asks to join the lesson.

After Anne's lesson, Sam still needed to be ready to approach the teacher or the violin. Luckily, his brother, Charles (who is also in speech therapy), exclaimed. "I want to learn violin!" Charles, age 7, approached the teacher who made a foot chart for him to stand, and he began his first violin lesson that focused on adequately securing the violin on the shoulder and placement of the violin in a rest position tucked under his right arm. The lesson also covered care for the instrument and practicing removing it from the case and putting it back into it. The lesson ended with the customary thank-you bow.

After Charles put his violin away in its case, Sam whispered to his mother that he wanted a lesson. Sam approached the teacher, who quickly made a foot chart for him to stand, outlining the shape of his cowboy boots. The teacher began to instruct on the same concepts taught to Anne and Charles. Since Sam had already watched the same lesson play out two times before, he astutely followed the instructions. After the lesson, Sam enthusiastically spoke his first words to the teacher, "Thank you!" as he bowed.

Week 2

During week two, the Taylor family's second lesson, Charles and Sam arrived at their lesson having forgotten their foot chart. During the lesson of the older brother, the foot alignment was placed correctly, with gentle reminding from the teacher regarding proper placement. The younger brother was unable to place his feet in the correct alignment without the foot chart. His mother physically moved his feet for him, which became a game for the child and distracted him from the lesson, at that point, the teacher immediately made a new foot chart for him.

Charles' lesson began with singing “Twinkle, Twinkle Little Star Variation A.” The teacher then guided Charles toward proper alignment by setting his stance from the ground up; feet hip distance, knees slightly bent (not locked), center forward, belly button facing the teacher, and tall posture. The teacher asked Charles to relax his hand over the bow with the task of "do nothing." The teacher requested this to help Charles use the natural weight in a relaxed bow hand and not a bow hold. In this exercise, the teacher moved the bow for the child while the child formed a bow hand at the frog, and the teacher checked to see if the child's hand was relaxed with fingers curved while the shoulder (relaxed and down) was a counterbalance for the bow to rest on.

Learning the proper technique for placing the fingers onto the bow is a step-by-step process. These steps include suspending all fingers over the bow with the thumb detached. Working to the ability of the child and when they are ready, the final step is a "professional bow" hand that will attach the thumb at a 45% angle just between the frog and grip portion of the bow, checking that the thumb stays curved and is not locked or holding tension. Fingers are fluid, and the amount of curve or bend in the fingers varies at different places when the bow is drawn across the string. Because the case study is limited to four weeks, bow hand possibilities were experienced; however, the teacher spent most of the lesson on the step the child was ready for, in this case- the thumb detached. After the ear training exercise of singing, the body alignment checks, and the bow exercises, Charles practiced placing the violin on the back of his shoulder using the natural weight of his head to keep the violin secure under his chin. Anne mentioned that she had practiced this task with both her sons each day, and it was evident that she had been helping them with it.

Anne brought to the teacher's attention that her son Sam was very interested in her helping him learn the violin at home, but he did not want to have a lesson with the teacher. However, Sam was willing to try the lesson and was receptive to all the same tasks as his brother Charles. In addition, Sam continued to play the same rhythm pattern (4 sixteenth notes followed by 2 eighth notes) on the open E string. The teacher guided the arm at the balance point and checked for the proper height of the elbow, forearm, wrist, and fingers while ensuring his shoulders were relaxed and down. Following Sams lesson, the teacher went through the same practice techniques with the parent acting as a student so that the parent could experience what she would then be teaching to her children during the week. All lessons ended with a thank you bow.

Week 3

The lesson began with an explanation from Anne about what her son, Charles was having problems with during at-home practice sessions. The main issue was the violin placement securely under the chin and on the back of the shoulder. The teacher had the child place the violin under his chin from a rest position under his right arm. The teacher noticed the child was turning shoulders and hips from the body's center. The teacher asked the child, what keeps the instrument on the shoulder, and the child remembered the first lesson when the teacher lay down on the ground and had the child carefully pick up her head from the floor to feel the natural weight of the head (which is heavy). The child understood that the chin was to be placed in the chin rest and that the natural weight of the head was to keep the instrument secure on the shoulder. The child also understood the correct tilt of the head. The teacher instructed the child to keep shoulders and hips centered forward to maintain proper body alignment. The child could correct the violin's positioning with a few practice attempts.

Anne informed the teacher that Charles's bow hand was stiff and locked. The teacher worked with Charles to experience the placement of the fingers over the bow relaxedly. The teacher had the child pick up each finger of the teacher's bow hand while the violin string counterbalanced the bow hair to see if the teacher was using natural or forced weight. Then, the teacher held the bow tightly and had the student test each finger to see if the fingers were natural or tense. The child could feel and see the difference between natural weight and hand balance versus force of weight and rigidity. This comparison helped the child to relax his fingers onto the bow.

Sam had been napping before his lesson. He wanted to refrain from speaking to the teacher and singing the music. The placement of the violin by the teacher (and not by himself)

looked great. He had spent time practicing with only mommy placing the violin, and he was ready to try and place the violin by himself. However, he was reluctant to do it by himself. It took some coaxing from Anne to motivate Sam to practice placing the instrument on his shoulder without her help.

Sam continued his lesson with the same rhythmic exercises on the E string that he had practiced throughout the week. He was able to successfully play with the teacher guiding his bow on the E string and explore the different levels of the arm for the same bowing exercise on the A string. The teacher checked that Sam understood the different levels of the arm as he moved between strings (stopping after each rhythmic pattern, setting the arm, making sure the bow hair was set deep into the string with the elbow and wrist in the correct level for the new string and then starting the rhythmic pattern on the new string only after finding the correct arm placement).

Week 4

Charles began his lesson by demonstrating that he could keep the violin on his shoulder with the natural weight of the head, securing the instrument without rotating his left shoulder away from the center of his body. It was evident that he had worked on this with his mother, Anne. He could also move the bow using the opposite shoulder as a counterbalance and create a relaxed bow hand at the frog. The teacher moved the bow for one turn to the familiar rhythm Mis-sip-pi Hot-Dog, and Charles moved the bow for the second Mis-sip-pi Hot-Dog. They continued alternating as the teacher checked that Charles' thumb was not locked but softly curved and the fingers were flexible and not stiff or overly "holding" the bow- instead, they were dynamically balancing the weight. The teacher praised him for his effort and for making the challenging technique he had been working on look easy.

The same alternating between the teacher moving the bow and the child moving the bow continued with the violin placed under the chin and on the backside of the shoulder. The string counterbalanced the bow hair this time while the child made a relaxed bow hand at the frog. The left thumb also opposed the bow by softly touching the side, underneath the neck of the violin, closer to the scroll, around the first position. The student played the preparatory exercises found in the Suzuki method book on the open E and A string. The child accomplished these tasks effortlessly.

The teacher then demonstrated “Twinkle, Twinkle Little Star Variation A” on her violin. The teacher divided the piece of music into smaller sections for more accessible learning. The music's beginning and end were designated the “bread” sections, and the middle section was the “peanut butter and jelly.” In this piece of music, children often get lost. From her Suzuki Violin teacher training courses, the teacher learned to label the different sections for clarity. She demonstrated the “bread” section and explained that the child should gently touch the pointer finger (the first finger in violin playing because we do not count the thumb) onto the string near the scroll in the first position to shorten the length of string creating the tone F#. The teacher demonstrated the left-hand pattern of open A, open E, first finger F#, open E.

The teacher and student sang the absolute pitches, and then the teacher asked the child to practice the same left-hand example that the teacher demonstrated. The teacher checked that the first finger was round, touching the string on the thumb side corner of the fingertip, and touching the string gently, just enough to change the length of the string without tension in the finger. The left thumb was to remain soft, abstaining from pressing into the instrument. After feeling comfortable with the left hand, the teacher added sound by bowing the rhythmic pattern on the

string for the child while the child's left hand continued practicing the finger pattern open A, open E, first finger F#, open E.

It took many practice opportunities until Charles was ready to combine the skills of both left and right hands attempting the tonal pattern while bowing the rhythmic pattern. Charles continued with the left-hand finger pattern adding a relaxed bow hand at the frog while the teacher helped to guide the bow across the string to the rhythmic pattern. Following this practice opportunity, the teacher requested that Charles notice and observe changes in the height and level of the right arm as the bow moved between the two different strings. After practicing, Charles tucked his instrument under his arm and took a hard-earned thank-you bow.

Before Sam's lesson, the teacher spoke to him about staying on his foot chart. She told him that he was very strong and able to stand for the short lesson and that his mother also knew that he could finish the lesson without having to go to Mommy for hugs. The teacher assured Sam that his mom was watching him and approving of him from her nearby seat. Sam's lesson was identical to his brother Charles's lesson, however, since he had observed his brothers lesson, he was able to glide effortlessly through learning tasks. There were a few moments, like the last lesson, where he did not want to try to move the bow by himself or place the violin on the shoulder without the help of the teacher. Anne reminded him that he could do it by himself, and when he heard her encouragement, he became more willing to try. Sam could stay on his foot chart the entire lesson without going to his mother for hugs and approval, which was a huge accomplishment. The teacher praised and encouraged Sam for his effort and well-done job.

Service Member Practice Surveys

Practice survey questions asked SMs what perceived relational and musical hurdles they encountered in daily practice sessions with their children. Results indicated perceived relational

hurdles of communication, understanding, and patience. The Wilson family SM wrote, "There was frustration by both parent and child related to the level of focus needed and the children being tired at the time of practice due to their schedule." Helping the child find proper bow hand placement was a challenge for service member parents especially related to thumb placement. Steve felt that not having a musical background made it difficult to co-teach. He also commented that the staying ability of his child was a challenge in that she would burn out quickly and "just be done." Steve noticed that the first week of practicing was more accessible than subsequent weeks due to his progressively hectic work schedule. George, who oversaw practice sessions with two children, said the older child "had difficulty relaxing his body when holding the bow or while standing holding the violin." He also noted that "the younger child wanted to try and speed through everything to try and catch up with his sibling."

When asked if the SM spent more time with the participating child in practice sessions than they would have normally spent with them if they were not taking Suzuki music lessons, George wrote, "More individualized attention was given to each child. We do spend time normally in the same room, but each of us has distractions which reduce the quality time." All of the SMs acknowledged that they would have spent time with their child doing another activity, but practicing violin with them one-on-one encouraged more quality time.

Survey questions asked SMPs what benefits they observed from this participation in this study. Responses included confidence, patience, cooperation, and working together. All SMPs commented that they noticed improved self-confidence in their participating children. The Wilson family SM indicated that his children were eager to learn and practice their new instrument and both children became more confident about what they needed to practice each week. George wrote in his practice survey that his children had fun while practicing, could

demonstrate what they learned, and the practice allowed for uninterrupted quality time without distractions. George also acknowledged that learning something challenging helped his children grow in their confidence/self-esteem and that practicing with them helped him bond with his children. Anne noticed that it provided an opportunity to work with her children on something that she enjoyed learning and teaching. John wrote, "I learned how to interact better and merge teaching styles to suit my child's special needs." Steve observed his daughters' extended patience improved and "buy-in" with daily practice sessions each week. In the Taylor family, where Sam struggles with speech, the mother, Anne, indicated that daily practice sessions helped Sam be more expressive when talking. Steve observed improved self-confidence in his children during practice sessions and because of this study.

Military Child Practice Surveys

In the practice surveys distributed to the military child participants, one question asked what perceived relational hurdles they encountered in at-home practice sessions with the SMP. Not all children completed this section of the survey. The younger children aged 5-6 did not understand the question enough to answer. Charles stated that proper thumb placement onto the bow and centering his body forward was challenging. He said his arm would tire when he first started playing the violin; however, he would still be required to continue practicing despite his fatigue. Charles's mother, Anne, added that motivation was sometimes a relational hurdle. She said that sometimes Charles did not always want to practice violin, and he was upset that violin lessons had started before basketball practices had begun. Jackson noted that thumb placement on the bow and disagreement with his father on where he should place the thumb onto the bow were musical hurdles they experienced during at-home practice sessions.

One question asked if taking Suzuki violin lessons helped with perceived self-expression. Jackson responded, “Yes, I was very happy and eager to learn something new.” This reaction may reflect the joy and eagerness that Suzuki violin lessons can instill in children. The other children also answered, “Yes,” stating that improved self-expression ranged from slightly to extremely improved. Another question asked children if practicing with their SMPs helped with their perceived level of support. Jackson’s comment, “Yes, my dad showed me he was learning too and could do the same things I was taught,” demonstrates the positive impact of parental involvement in the learning process. Both children in the Taylor family agreed they felt supported by their SMP in the process of learning the violin.

Survey questions asked the children if they spent more time with their SMP than they would typically have if they were not taking Suzuki violin lessons. Jackson and Caleb indicated that their SM dad did spend more time with them because of participation in this study. Charles noted that he had more one-on-one time with his mother. His mother explained that they often do activities together as a family, but practicing violin with her children required her to spend one-on-one time with them. One-on-one time was important to this family because it was a larger family with five children. Child participants noted the benefits of Suzuki violin lessons. Jackson noted, “I learned to relax my body and to take my time.” Sarah’s comment that playing the violin made her feel “peaceful” accentuates the emotional benefits of music education.

Exit Survey Results

Survey questions distributed at the end of the study yielded the following results. Did SMs receive a definite and straightforward way to interact with the child participant that encouraged parental engagement? All SMs wrote, “Yes.” The Wilson family SM replied, “Yes,

I was able to deliberately set aside practice time with them, which helped with quality time." SMs agreed that their quality of time with the MC participants increased because of the study.

When asked if the SM would recommend the Suzuki Triangle approach for other service members and their children, all replied, "Yes." All SMs agreed they had a definite and straightforward way to interact with their child through the teacher guided tips provided in the Suzuki violin lessons. Did SMs observe that participation in this study helped the military child? George said, "Yes, I could see their confidence went up and they were excited to practice with me." John wrote, "Yes, the clear structure of practice was difficult at first, but my son warmed up to it, and I began seeing results." Steve noticed that it helped with confidence, challenged them to work together on something hard, and helped him bond with his girls. SMs also stated that their relationship with the MC was perceived to be stronger because of practicing with them every night.

MC Exit Survey Results

Did your perceived coping skills improve because of this study? Jackson replied, "Yes, it helped keep my mind off my friends who have to move." He elaborated on the unique environment of his school, a community of military children within a military housing complex. This setting, shaped by the transient nature of military life, often saw children moving to other duty stations or joining as new students. When asked about the benefits of the study, Jackson shared, "The teacher was nice and taught differently than others and is good, and I was able to spend more time with daddy." All the MC participants expressed a sense of solidarity, recommending Suzuki Violin lessons to other military children as an intervention program.

Summary

Survey results confirmed the hypothesis that the Suzuki Triangle approach to teaching the violin can significantly benefit military children. This approach not only fosters parental engagement but also cultivates positive self-esteem, self-expression, and coping skills. The military parents (SMs) who took part in this study demonstrated remarkable commitment, practicing with their children 4-7 days a week. They also attended weekly music lessons, actively engaging in their child's learning journey.

As noted by the exit survey, the SMs had a straightforward approach to interacting with their child through the Suzuki Triangle approach, following prescribed methods by the teacher for student improvement and nurturing the child through the shared goal and experiences of learning the violin. According to exit surveys, the children who participated in this study believed that they connected with their parents in playing the violin, their perceived coping skills and confidence/self-esteem improved, and through learning the violin, their self-expression improved.

Tables, and Charts

The researcher gathered survey results and presented them in charts that indicate weekly practice sessions, time spent in at-home practice sessions, perceived levels of connectedness between SM and MC, perceived level of connectedness between MC and SM, the degree to which that level of connectedness changed, the child's perceived coping skills, self-expression, and self-esteem, and SM observed benefits for the MC from participating in Suzuki violin lessons.

The weekly practice table contains the results of the number of days spent each week between SMP and MC practicing the violin together during one-on-one, at-home practice sessions over the course of four weeks.

Table 1. Estimated Number of Days Practicing per Week

Name	Week 1	Week 2	Week 3	Week 4
Sanderson	7	4	5	6
Forest	6	6	4	4
Taylor	5	5	5	6
Wilson	5	6	6	5

The weekly practice table contains the results of the duration in minutes that the SMP and MC spent practicing the violin together during daily one-on-one, at-home practice sessions.

Table 2. Estimated Duration in Minutes Practicing per Day

Name	Length of Practice Sessions
Sanderson	30 minutes
Forest	25 minutes per child
Taylor	15-20 minutes per child
Wilson	15-20 minutes per child

The following chart contains the results of the estimated duration in minutes that the SMP and MC spent practicing the violin together per week during daily one-on-one, at-home practice sessions. Note: The Forest, Taylor, and Wilson SMPs oversaw practice sessions for two children. To accurately estimate their time spent overseeing practice sessions, double the duration of minutes spent practicing.

Table 3. Estimated Duration of Minutes Practicing per Week

Name	Week 1	Week 2	Week 3	Week 4
Sanderson	210 minutes	120 minutes	150 minutes	180 minutes
Forest	150 minutes	150 minutes	100 minutes	100 minutes
Taylor	75 minutes	75 minutes	75 minutes	90 minutes
Wilson	75 minutes	90 minutes	90 minutes	75 minutes

The following chart contains the results of the SM Exit Survey question: What is the service member's perceived level of connectedness as a result of participating in the Suzuki Triangle approach to teaching the violin? Circle which answers best applies: Extremely Connected, Very Connected, Connected, Slightly Connected, Not Connected.

Table 4. Service Member Perceived Level of Connectedness

Name	Extremely Connected	Very Connected	Connected	Slightly Connected	Not Connected
Sanderson		X			
Forest		X			
Taylor		X			
Wilson		X			

The following chart contains the results of the MC Exit Survey question: What is your perceived level of connectedness with the SM parent as a result of participation in the study? Circle which answers best applies: Extremely Connected, Very Connected, Connected, Slightly Connected, Not Connected.

Table 5. Military Child Perceived Level of Connectedness

Name/Age	Extremely Connected	Very Connected	Connected	Slightly Connected	Not Connected
Erick S./6			X		
Sarah F./7			X		
Leah F./7			X		
Sam S./5		X			
Charles S./7	X				
Jackson T/8	X				
Caleb T./6	X				

The following chart contains the results of the MC Exit Survey question: What level of perceived connectedness to the SMP improved as a result of participation in Suzuki violin lessons? Circle which answers best applies: Extremely Improved, Very Improved, Improved, Slightly Improved, Not Improved.

Table 6. MC Perceived Level of Improvement in Connectedness

Name/Age	Extremely Improved	Very Improved	Improved	Slightly Improved	Not Improved
Erick S./6			X		
Sarah F./7			X		
Leah F. /7			X		
Sam T./5	X				
Charles T./7		X			
Jackson W./8	X				
Caleb W./6			X		

The following chart contains the results of the MC Exit Survey question: Did your perceived coping skills improve because of this study? Circle which answers best applies: Extremely Improved, Very Improved, Improved, Slightly Improved, Not Improved.

Table 7. Military Child Perceived Level of Coping Skills

Name/Age	Extremely Improved	Very Improved	Improved	Slightly Improved	Not Improved
Erick S./6	X				
Sarah F./7			X		
Leah F. /7				X	
Sam T./5				X	
Charles T./7				X	
Jackson W./8	X				
Caleb W./6		X			

The following chart contains the results of the MC Exit Survey question: What level of perceived self-expression improved as a result of participation in the study? Circle which answers best applies: Extremely Improved, Very Improved, Improved, Slightly Improved, Not Improved.

Table 8. Military Child Perceived Level of Self-Expression

Name/Age	Extremely Improved	Very Improved	Improved	Slightly Improved	Not Improved
Erick S./6			X		
Sarah F./7		X			
Leah F. /7				X	
Sam T.5/	X				

Charles T./7	X				
Jackson W./8	X				
Caleb W.6	X				

The following chart contains the results of the MC Exit Survey question: Did your perceived self-esteem/confidence improve as a result of this study? Circle which answers best applies: Extremely Improved, Very Improved, Improved, Slightly Improved, Not Improved.

Table 9. Military Child Perceived Level of Improved Self-Esteem/Confidence

Name/Age	Extremely Improved	Very Improved	Improved	Slightly Improved	Not Improved
Erick S./6			X		
Sarah F./7			X		
Leah F. /7			X		
Sam T./5			X		
Charles T./7			X		
Jackson W./8		X			
Caleb W./6	X				

The following table illustrates the benefits that the SM observed for the MC as a result of Suzuki violin lessons.

Table 10 Observed Benefits by the SM

MC improved confidence
MC and SM improved patience
Cooperation
Working together

Eagerness to learn
Confidence in mastery of learning concepts
Having fun
Ability to demonstrate what was learned
Uninterrupted quality time
Help with bonding
Better interactions with child
Childs' "buy in" improved
Improved expressiveness
Shared opportunity that SM enjoyed

Summary

Results from questions asked in the Exit Survey to the MC and SMP participants were positive. They indicated that learning to play violin with the Suzuki Triangle approach will benefit the MC. SMs spent an average of five days a week practicing with their MC during one-on-one, at-home sessions over four weeks. SMs spent between 15-30 minutes at each practice session per child. The average weekly time the SM spent in practice with each participant child was 112 minutes. Service members overseeing two children doubled the time spent in practice sessions. SMs indicated that their perceived level of connectedness due to participating in this study was very connected. Military children indicated that their perceived level of connectedness as a result of participation in this study ranged from connected to highly connected, and the level of perceived connectedness improved between the range of improved and extremely improved. The MC's self-reported coping skills and self-expression improved in the range of slightly to extremely and their self-reported self-esteem/confidence ranged from improved to extremely improved.

Chapter Five: Conclusion/Discussion

Summary of Study

Four volunteer military families participated in a case study lasting four weeks. The purpose of the case study was to determine if the Suzuki Triangle approach, (a teaching method developed by Shinichi Suzuki that involves the student, the parent, and the teacher in a learning partnership), to teaching the violin would benefit the MC who has experienced the stresses of military life. These stresses include frequent military moves, parent deployment/away-from-home training, and potential exposure to physical and mental illness threatening the stability of the home.

In the Suzuki Triangle approach, the parent attends weekly music lessons with their child and oversees at-home daily practice sessions. In this research, attending lessons and overseeing daily practice sessions promoted parental engagement, and the study's results indicated that parental engagement helped create one-on-one quality time for SM and child participants. In learning the violin with a SM parent actively engaged, the MC and SM had an opportunity for improved perceived connection, which helped the MC feel supported and encouraged. This support and parental engagement through learning the violin via the Suzuki Triangle, led to the child's increased perceived coping skills, self-esteem/confidence, and self-expression, as measured by survey questions.

Summary of Findings

The researcher observed the SM's parental engagement during the weekly violin lessons. The military children, ranging in age from five to eight, were accompanied by their SMPs who actively participated in the lessons by personally learning and experiencing the violin, taking notes, providing encouragement, maintaining pleasant facial expressions, and even recording

parts of the lesson for future reference. This active involvement allowed SMPSs to gain a deeper understanding of the technical aspects of the violin, which they could then use to enhance their child's learning during daily practice sessions at home. Importantly, the SMPs refrained from using their phones and laptops during the lessons, demonstrating their commitment to learning and active support of the MC.

The researcher noticed the parents' increased patience with the child, which was met with positive changes in the children's behavior. Initially, many children seemed unfamiliar and reluctant to have their SMPs directly engage with them in a music lesson. However, the researcher observed that the children became more accepting of their SMPs participation in the lesson during weeks three and four. The lesson length was varied by the teacher and based on the child's ability to focus. Lesson times were not limited to an exact amount of time but were student-centered. The teacher would teach concepts to the child at the pace the child and parent were willing to work. The teacher made this format possible by carefully scheduling participants to come on different days instead of back-to-back. Each child's growth in their ability to focus, listen, and respond to the teacher for longer durations improved.

The SMP and their participating child received feedback for improvements, accomplishments, and achievements together. The teacher would ask the pair, 'How was practicing this week?' they would respond collaboratively. Children who initially could not stay on their foot chart progressively improved each week in their ability to stay in one place and focus, and their lesson duration gradually increased. Challenges related to playing the violin that presented themselves in weeks one and two, such as centering forward, securing the violin in a comfortable, and stable position, holding the bow correctly, playing the correct notes,

progressively got better, and by the last lesson, the things that seemed complicated for children began to look easy. As the students' abilities grew, they were ready for more challenges.

Children with known speech delays were more willing to communicate with the teacher by the last lesson. This improvement in their communication skills can be attributed to the structured learning experience they were exposed to, followed by the discipline of daily practice sessions. The SMPs played a crucial role in this process, providing consistent support and encouragement. As a result, the children's ability to perform learning tasks, stay concentrated, respond to the teacher, and practice with their SMP daily improved significantly.

The music encounters children experienced with the SMP, facilitated through direction from a certified Suzuki violin teacher, differed from the musical encounters found in music therapy offerings to active-duty military veterans and their families. While music therapy typically has a non-musical goal, [160] the music encounters in this study were focused on developing the child's musical skills through the Suzuki Triangle and the SMs contribution to the learning process of their child. The participants in this research followed a sequential learning plan building on mastery before moving on to the next musical goal.

Research has pointed to the need for interventions for military children, especially interventions that can provide opportunities for more parental engagement. Military life counselors have determined that resilient military children have “positive self-esteem, relationships with caring adults, ability to care for others, effective problem-solving skills, an acceptance that change is part of life.”[161] Military and family life counselors suggest that SMs

[160] Victoria Omson, "Reduction of Anxiety through Music Therapy," Order No. 28870316, University of Massachusetts Global, (2021): 12.

[161] “Privacy Policy,” Privacy & Terms, Google, last modified June 6, 2023, Microsoft PowerPoint - P0217_Building Resiliency in Children. A Parent's Guide.ppt (wordpress.com): 7.

spend extra time with their children, listening to and praising them to help them with resiliency.[162] Children from ages 6-8 are especially at risk to a SM's potential away from home trainings and deployments.

Survey findings from this study indicated that more individualized attention was given to each child, uninterrupted and free of distractions. Practicing violin one-on-one encouraged more quality time and provided an opportunity for bonding. The shared experience of learning and growing together, noted by SMs who participated in this research, fostered a strong sense of unity and connectedness between the SM-MC. The perceived level of connectedness between the MC and SM ranged from connected to extremely connected. Self-reported coping skills and self-expression ranged from slightly improved to extremely improved for the MC participants, and self-esteem/confidence ranged from improved to extremely improved. SM and MC participants would all recommend the Suzuki Triangle approach to teaching violin as an intervention for the MC to other SMs and military children.

Limitations

Due to an unforeseen wait for IRB approval, the researcher shortened the research case studies to four weeks. The shorter study gave a glimpse into the effect of the Suzuki Triangle on the MC and the SMP. Music educators should conduct further research to investigate long-term effects. The research was limited to four military families. Music educators should conduct further research with more military family participants. The research was limited to geographical location and two military branches, the United Sates Air Force and the United States Army. Three of the four SMs who participated in this research were from an Air Force Base at the same

[162] "Privacy Policy," Privacy & Terms, Google, last modified June 6, 2023, Microsoft PowerPoint - P0217_Building Resiliency in Children. A Parent's Guide.ppt (wordpress.com): 9.

military installation. Two families lived in the same military housing community; the others lived in a neighboring city. The military SMs who participated in this study were the following ranks: Enlisted 7, Enlisted 6, and Staff Sergeant. Further research, including a broader range of military ranks and positions, may be beneficial. The age range of the children was also a limitation. Participating children were between the ages of 5-8. Younger children aged 5 and 6 had difficulty answering the survey questions and needed the help of their parents. The survey questions with the most extended answers were from the oldest MC participant, age 8. It would have benefited the study to have included more students aged 8-12.

SMs did not practice with their child participant every night as requested in the screening survey but did practice most nights. Daily practice sessions were 4-6 nights a week, with the average daily practice sessions between all SMs being 5 days a week. Each participant chose how long each practice session lasted depending on their schedule and their individual child's needs. Excuses for missing daily practice sessions between SM and MC included work-related issues, sickness of other children in the home, and being tired.

Self-expression could not be measured accurately in practice surveys because all the participants were beginners and primarily focused on the instrument's technical aspects, such as holding the violin and bow. More advanced students are capable of more advanced concepts and exploring ways to be expressive in the music they are studying, playing, and performing. An experienced violin student may have answered differently on the practice survey regarding self-expression.

Recommendations for Future Study

Future recommendations include conducting research for an extended period, investigating the effects of weekly Suzuki group classes (social music making) for military families and exploring results of military children who are not all beginners. Expanding the geographic range of participants to include military families across the United States and overseas would make an interesting comparison. Including families from several military branches and installations would also broaden the study. Including older military children in the research would be interesting. The younger children needed help completing the questionnaires and explaining certain terms. Older children would be able to complete it on their own and perhaps be a better indicator of how the Suzuki Triangle could act as an intervention for them. In future studies, this research should be replicated by testing the results before and after using validity instruments. Military families face challenging transition times such as deployments, post-deployments, and PCS. Targeting those unique transition times and replicating this study with military families currently experiencing those transitions would broaden this research.

Implications for Practice

Suzuki music teachers, already teaching military children, should invite and encourage SMPs to attend the lessons and participate in the Suzuki Triangle if they are not already. The unique support that the Suzuki Triangle can provide, especially in the context of connecting the MC and SM, is invaluable. If military travel and deployment are concerns, the SMP can share the responsibility of co-teaching and attending lessons with a spouse or family member, thereby ensuring the child's continuous progress, and providing a sense of stability. Military family resiliency groups should include Suzuki violin lessons in their support offerings for families, recognizing the benefits to the military child. Youth and teen centers on military installations

should hire Suzuki-certified music teachers and offer Suzuki lessons with an emphasis on the Suzuki Triangle to the military families they serve, further extending this unique support system.

Researcher Positionality

As a military spouse married to a SM who has served in the United States Navy for twenty-five years, the current author's family has experienced ten deployment cycles, many out-of-town trainings that separate SM from family, and 3 PCS moves (one of which was over-sees) within the lifetime of her child, age thirteen. Military children need intervention strategies to help build self-esteem, coping skills, and resiliency. The current author is passionate about the well-being of military children who face the unique challenges of frequent moves, changing schools, having to make new friends and find new activities, living overseas, having a parent who is often not home because of training and deployments, and potentially having an SM parent with has experienced trauma.

Summary

This research followed four families in four weeks of private Suzuki violin lessons using the Suzuki Triangle as a tool of intervention and support for the MC, encouraging parental engagement of their SMP in the lesson and at-home practice sessions. The SM parent's involvement was not just crucial, but also deeply valued, as it significantly contributed to the children's progress. Participants were surveyed and observed on their progress in learning the violin within the relational triangle of teacher-parent-student working together. The MC has experienced the stress of a parent's military career from frequent moves, parental deployments, and away-from-home training, and their potential illness from trauma; the Suzuki violin and its characteristic of the Suzuki Triangle provides a resource for the MC and the SM to engage and promotes positive self-esteem/ confidence, and coping skills. As the SM attended the lesson with

the MC and worked with them daily at home during practice sessions, the MC learned how to play the violin, which also provided a vehicle for self-expression.

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Appendix A: Permission Request

February 1, 2024

Military Family Support Group

Dear Military Family Support Group,

As a graduate student in the School of Music at Liberty University, I am conducting research as part of the requirements for a Doctorate in Music Education degree. The title of my research project is Investigation into the Effects of the Suzuki Violin "Triangle" Method of Teaching (teacher-parent-child working collaboratively) as an Intervention Program for Military Children.

The purpose of my research is to examine/explore an intervention program for military children who have experienced the stresses of military life.

I am writing to request your permission to conduct my research with families supported by your organization by receiving the contact information for eligible service members and their families to invite them to participate in my research study.

Participants must be military service members who have a child aged 5-12 interested in taking weekly private violin or viola lessons over the course of 4 weeks. Participants will be asked to attend lessons with their child (1 hour each week for 4 weeks) and oversee short daily (7 days a week, without the teacher) practice sessions with their child (15-45 minutes). Participants will complete a preliminary survey before the first lesson, as well as a practice survey and an exit survey following the final lesson. Each survey will take approximately 10 minutes to complete. The weekly hour-long lessons will be photographed. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

If you choose to grant permission, please respond by email to [redacted] and complete the attached permission letter.

Sincerely,
Heather Howard-Hannock

Appendix B: Recruitment Flyer

Research Participants Needed

Investigation into the Effects of the Suzuki Violin "Triangle" Method of Teaching (teacher-parent-child working collaboratively) as an Intervention Program for Military Children.

- Are you a service member with a child aged 5-12 that would like to learn violin/viola?

If you answered **yes** to each of the questions listed above, you may be eligible to participate in a research study.

The purpose of the study is to provide an intervention program for military children experiencing the stresses of military life.

Participants will be asked to attend weekly, photographed private violin or viola lessons over 4 weeks (1 hour per lesson) and oversee short daily (7 days a week without the teacher) practice sessions with their child (15-45 minutes). Participants will also complete a preliminary survey before the first lesson, as well as a practice survey and an exit survey following the final lessons. Each survey will take approximately 10 minutes to complete. Names and other identifying information will be requested as part of this study, but participant identities will not be disclosed.

Benefits include private violin/viola instruction for the child with teacher-guided tips on practicing at home.

The lessons for this study are being conducted at the following address:
104 Mays Lane
Yorktown, VA 23690

To participate, please contact me using the information provided below. I will send you a survey to complete and return via email. If you are deemed eligible after you complete the screening survey, I will work with you to schedule a weekly lesson time.

A parental consent document and a child assent document will be sent to you via email if you are deemed eligible.

Heather Hannock, a Doctoral candidate in the School of Music at Liberty University, is conducting this study.

Information

Appendix C: Recruitment Social Media

ATTENTION MILITARY FAMILIES: I am conducting research as part of the requirements for a Doctorate in Music Education at Liberty University. The purpose of my research is to provide an intervention program for military children experiencing the stresses of military life. To participate, you must be a military service member with a child between the ages of 5-12 who would like to take private violin or viola lessons. Participants will be asked to attend weekly private lessons with their child (1 hour) over a 4-week period, and oversee daily (7 days a week, without the teacher) practice with their child (15 to 45 minutes, depending on their child's age). Participants will complete a preliminary survey before the first lesson, as well as a practice survey and an exit survey following the final lesson. Each survey will take approximately 10 minutes to complete. The weekly hour-long lessons will be photographed. If you would like to participate and meet the study criteria, please private message me. A consent form will be emailed to you if you are deemed eligible. If you choose to participate, you will need to sign the consent document and return it to me before the first scheduled lesson.

Appendix D: Recruitment Verbal

Hello Potential Participant,

As a graduate student in the School of Music at Liberty University, I am conducting research as part of the requirements for a Doctorate in Music Education. The purpose of my research is to is to provide an intervention program for military children experiencing the stresses of military life and if you meet my participant criteria and are interested, I would like to invite you to join my study.

Participants must be military service members who have a child aged 5 to 12 interested in taking weekly private violin or viola lessons over the course of 4 weeks. Participants will be asked to attend weekly audio-video-recorded and photographed lessons with their child (1 hour each week for 4 weeks) and oversee daily (7 days a week, without the teacher) practice sessions with their child (15-45 minutes, depending on the child's age). Participants will complete a preliminary survey before the first lesson, as well as a practice surveys and an exit survey following the final lesson. Each survey will take approximately 10 minutes to complete. Names and other identifying information will be requested as part of this study, but participant identities will not be disclosed.

Would you and your child like to participate? If so, could I ask you a few screening questions to determine your eligibility? If you are eligible, could I get your email address so that we can set up lesson times and so that I can send you the consent form? If not, I understand. Thank you for your time.

A consent document will be emailed to you if you are deemed eligible. The consent document contains additional information about my research. If you choose to participate, you will need to sign the consent document and return it to me before the first scheduled lesson.

Thank you for your time. Do you have any questions?

Appendix E: Recruitment Follow-Up

February 1, 2024

Dear Potential Participant,

As a graduate student in the School of Music at Liberty University, I am conducting research as part of the requirements for a Doctorate in Music Education degree. Last week an email was sent to you inviting you to participate in a research study. This follow-up email is being sent to remind you to respond if you would like to participate and have not already done so. The deadline for participation is February 1, 2024.

Participants must be military service members who have a child aged 5-12 interested in taking weekly private violin or viola lessons over the course of 4 weeks. Participants will be asked to attend lessons with their child (1 hour each week for 2 months) and oversee short daily (7 days a week, without the teacher) practice sessions with their child (15-45 minutes). Participants will complete a preliminary survey before the first lesson, as well as a practice surveys and an exit survey following the final lesson. Each survey will take approximately 10 minutes to complete. The weekly hour-long lessons will be photographed. Names and other identifying information will be requested as part of this study, but participant identities will not be disclosed.

To participate, please contact me at [redacted] I will send you a survey to complete and return via email. If you are deemed eligible after you complete the screening survey, I will work with you to schedule a weekly lesson time.

A parental consent document and a child assent document will be sent to you via email if you are deemed eligible. These documents contain additional information about my research. If you and your child choose to participate, you will need to sign these documents and return them to me via email before the first scheduled lesson.

Sincerely,

Heather Howard-Hannock

Appendix F: Screening Survey

Research Title: Investigation into the Effects of the Suzuki Violin "Triangle" Method of Teaching (teacher-parent-child working collaboratively) as an Intervention Program for Military Children.

Research Purpose: The purpose of the study is to provide an intervention program for military children.

Research Procedures: Participants will be asked to attend lessons with their child and oversee at-home short daily practice sessions with their child for the duration of 4 weeks. It will take one hour a week of private instruction and approximately 15-45 (depending on the child's age) minutes of daily (7 days a week without the teacher) practice time. Participants should be willing to complete a preliminary survey, a practice survey, and an exit survey that will be emailed. Participants should be willing to be photographed and attend private music lessons.

Please answer the questions below.
Are you a military service member who have a child between the ages 5-12 who would like to learn the violin or viola? (answer yes, or no). _____

Benefits include private violin/viola instruction for the child with teacher-guided tips on practicing at home.

Heather Hannock, a Doctoral candidate in the School of Music at Liberty University, is conducting this study.

Please email this screening survey to [redacted]

Appendix G: Service Member Consent Form

Title of the Project: Investigation into the Effects of the Suzuki Violin "Triangle" Method of Teaching (teacher-parent-child working collaboratively) as an Intervention Program for Military Children.

Principal Investigator: Heather Howard-Hannock, DME candidate, School of Music, Liberty University.

Invitation to be Part of a Research Study

You and your child are invited to participate in a research study. To participate, you must be military service member who have a child aged 5-12 interested in taking weekly private violin or viola lessons over the course of 4weeks. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to participate and allow your child to take part in this research project.

What is the study about and why is it being done?

The purpose of the study is to provide an intervention program for military children.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. Attend a weekly photographed private violin or viola lesson with your child that will take no more than 1 hour once a week in a 4 week time frame.
2. Oversee short daily (7 days a week, without the teacher) practice sessions with your child (15-45 minutes, depending on the age of your child).
3. Complete a preliminary survey before your child's first lesson (10 minutes).
4. Complete weekly at-home surveys for 4 weeks (10 minutes).
5. Complete a final exit survey following your child's final lesson (10 minutes).

How could you or others benefit from this study?

The direct benefits participants should expect to receive from taking part in this study include private violin instruction for their child with teacher-guided tips on practicing at home with their child. Benefits also include an opportunity for parental engagement.

Benefits to society include providing an effective intervention program for military children.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks your child would encounter in everyday life.

I am a mandatory reporter. During this study, if I receive information about child abuse, child neglect, elder abuse, or intent to harm self or others, I will be required to report it to the appropriate authorities.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be kept confidential by replacing names with pseudonyms.
- Weekly lessons will be conducted in a location where others cannot easily overhear the conversation.
- Data will be stored on a password-locked computer, and hardcopy records will be stored in a locked drawer. After seven years, all electronic records will be deleted, and all hardcopy records will be shredded.
- Recordings will be stored on a password-locked computer for seven years and then deleted. The researcher and members of her doctoral committee will have access to these recordings.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

What are the costs to you to be part of the study?

There are no costs to be part of the study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate, as well as allow your child to participate, will not affect your or his or her current or future relations with Liberty University, if you decide to participant and allow your child to participate, you, as well as she or he, are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw yourself and your child from the study, or your child chooses to withdraw, please contact the researcher at the email address/phone number included in the next

paragraph. Should you choose to withdraw, data collected from you and your child will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Heather Howard-Hannock. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted]. You may also contact the researcher's faculty sponsor, Dr. Rebecca Watson, at [redacted].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to participate, as well as allow your child to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate, and to allow my child to participate in the study.

☐ The researcher has my permission to audio-record, video-record, and photograph me and my child as part of my and his/her participation in this study.

_____

Service Member's Signature Date

Appendix H: Child Assent to Participate

What is the name of the study and who is doing the study? The study's name is, Investigation into the Effects of the Suzuki Violin "Triangle" Method of Teaching (teacher-parent-child working collaboratively) as an Intervention Program for Military Children.

The principal investigator is Heather-Howard Hannock.

Why is Heather Howard-Hannock doing this study?
Heather wants to find out if violin or viola lessons with the support of a military parent attending the lesson and helping the student practice at home will provide a resiliency resource for the child.

Why am I being asked to be in this study?
You are being asked to be in this study because you are 5-12 years old and interested in taking weekly private violin or viola lessons over the course of 4 weeks.

If I decide to be in the study, what will happen and how long will it take?
If you decide to be in this study, you will be asked to attend weekly lessons (1 hour each week) and participate in short daily (7 days a week, without the teacher) practice sessions (15-45 minutes per day). You will also be asked to complete a survey before your lessons begin, weekly surveys for 4 weeks, and an exit survey following your final lesson. Each survey will take approximately 10 minutes to complete. Your weekly lessons will be photographed.

Do I have to be in this study?
No, you do not have to be in this study. If you want to be in this study, then tell the researcher. If you don't want to, it's OK to say no. The researcher will not be angry. You can say yes now and change your mind later. It's up to you.

What if I have a question?
You can ask questions any time. You can ask now. You can ask later. You can talk to the researcher. If you do not understand something, please ask the researcher to explain it to you again.

Signing your name below means that you want to be in the study.

Signature of Child/Witness Date

Heather Howard-Hannock
[redacted]
Dr. Rebecca Watson
[redacted]

Liberty University Institutional Review Board
1971 University Blvd, Green Hall 2845, Lynchburg, VA 24515; irb@liberty.edu

Appendix I: Child Preliminary Survey

Child Preliminary Survey: Intervention Via "Suzuki Triangle" Approach

Investigation into the Effects of the Suzuki Violin “Triangle” Method of Teaching (teacher-parent-child working collaboratively) as an Intervention for Military Children.

1. Full name

_____

2. Date of birth

_____

3. Current grade level in school

_____

4. Gender

_____

5. Please list extracurricular activities in which you currently are a participant. For example: Swim team, baseball.

_____
_____

6. Have you ever participated in a military child intervention program? If so, please list which ones. For example: Youth Center, CYS, School-aged center, youth sports and fitness programs for military children, FOCUS.

_____
_____

7. If you have participated in a military child intervention program, how much did it improve your perceived well-being? **Please circle one.** Extremely Improved, Very Improved, Improved, Slightly Improved, Not Improved?

8. If you have not participated in a military child intervention program, please list the reason(s) why. For example: I was unaware of such programs, I did not want to participate.

_____
_____

9. How many times do YOU remember your service member parent deploying or being away from home for a military training?

_____

10. Please list what activities you currently engage in with your service member parent. For example: Reading a book at bedtime, playing a game, watching a movie together.

_____
_____

11. Estimate how many hours a day you interact with your service member parent before taking lessons?

_____

12. How satisfied are you with the amount of perceived quality time you spend with your service member parent before taking lessons? **Please circle one**. Extremely Satisfied, Very Satisfied, Satisfied, Slightly Satisfied, Not Satisfied?

13. Please list known perceived advantages vs. disadvantages of being a military child.

_____
_____

Appendix J: Child Practice Survey

Child Practice Survey: Intervention Via "Suzuki Triangle" Approach

Investigation into the Effects of the Suzuki Violin “Triangle” Method of Teaching (teacher-parent-child working collaboratively) as an Intervention for Military Children.

1. Full name

_____

2. Age

_____

3. How many days a week did you practice with your service member parent overseeing the practice session?

_____

4. How many days a week did you practice alone?

_____

5. What was the duration of the average daily practice session? Please write the duration in minutes.

_____

6. Please list any reasons for days that you were unable to practice with your service member parent overseeing practice sessions. For example: I was sick and could not practice, he/she had to work late.

_____

7. What is your perceived level of connectedness with the participating service member parent this week? **Please circle one.** Extremely Connected, Very Connected, Connected, Slightly Connected, Not Connected.

8. To what degree has the perceived level of connectedness changed this week as compared to before participating in this study? **Please circle one**. Extremely Improved, Very Improved, Improved, Slightly Improved, No Change in Improvement.

Explain:_____

9. What perceived relational conflicts did you encounter with the service member parent during practice sessions this week?

_____

10. What perceived problems did you encounter with the service member parent specific to the prescribed practice requests from the teacher?

_____

11. Did you spend more time with your service member parent in practice sessions this week than you would have normally spent with he/she if you were not taking Suzuki music lessons?

12. What perceived level of improved self-esteem did you encounter this week? **Please circle one.** Extremely Improved, Very Improved, Improved, Slightly Improved, No Change in Improvement.

Explain:_____

13. Did taking Suzuki violin lessons this week help you with perceived self-expression?

Explain:_____

14. Did practicing with your service member parent help you with your perceived level of felt support?

Explain: _____

15. Please list observed benefits from practice sessions with your service member parent this week.

Appendix K: Child Exit Survey

Child Exit Survey: Intervention Via "Suzuki Triangle" Approach

Investigation into the Effects of the Suzuki Violin “Triangle” Method of Teaching (teacher-parent-child working collaboratively) as an Intervention for Military Children.

1. Child Participant Full Name

_____

2. Did your perceived coping skills improve because of this study? **Circle which answers best applies.** Extremely Improved, Very Improved, Improved, Slightly Improved, Did Not Improve.

3. Would you recommend Suzuki Violin lessons to other military children as an intervention program? Yes, or no?

_____

4. How did you benefit from this study?

_____

_____

5. What level of perceived self-expression improved as a result of this study? **Circle which answers best applies.** Extremely Improved, Very Improved, Improved, Slightly Improved, Did Not Improve.

6. Did your perceived self-esteem/confidence improve as a result of this study? **Circle which answers best applies.** Extremely Improved, Very Improved, Improved, Slightly Improved, Did Not Improve.

7. What is your perceived level of connectedness with the SM parent as a result of participating in this study? **Circle which answers best applies.** Extremely Connected, Very Connected, Connected, Slightly Connected, Not Connected.

8. What level of perceived connectedness to the service member parent improved as a result of this study? **Circle which answers best applies.** Extremely Improved, Very Improved, Improved, Slightly Improved, Did Not Improve.

Appendix L: Service Member Preliminary Survey

Service Member Preliminary Survey: Intervention Via "Suzuki Triangle" Approach

Investigation into the Effects of the Suzuki Violin "Triangle" Method of Teaching (teacher-parent-child working collaboratively) as an Intervention for Military Children.

1. Full name

_____

2. Date of birth

_____

3. Gender

_____

4. Phone number

_____

5. Email

_____

6. Marital Status: Single; Married; Divorced

_____

7. Branch of service/Military rank

_____

8. Length of service

_____

9. Number of deployments/ away from the home trainings

_____

10. Number of deployments/aways from home trainings since birth of participating child

_____

11. Length of last deployment

_____

12. Have you ever participated in a military family intervention program? If so, please list which ones. For example: FOCUS, Military One Source, Counseling.

_____

13. If you have participated in a military family intervention program, how much did it improve your perceived connectedness with your child? **Please circle one:** Extremely Improved, Very Improved, Improved, Slightly Improved, Not Improved.

14. If you have not participated in a military family intervention program, please list the reason(s) why. For example: (Not aware / Not offered / Schedule conflict).

_____

15. Please list what activities you currently engage in with your participating child. For example: Reading a book at bedtime, playing a game, watching a movie together.

_____

16. What is your perceived satisfaction in connecting with your participating child? **Please circle one:** Extremely Satisfied, Very Satisfied, Satisfied, Slightly Satisfied, Not Satisfied.

17. Please list perceived obstacles in connecting with your participating child. If there are no perceived obstacles, leave this question blank.

_____

18. Estimate how many hours a day you interact with your participating child?

_____

19. How satisfied are you with the amount of perceived quality time you spend with your participating child? **Please circle one**. Extremely Satisfied, Very Satisfied, Satisfied, Slightly Satisfied, Not Satisfied.

Appendix M: Service Member Practice Survey

Service Member Practice Survey: Intervention Via "Suzuki Triangle" Approach

Investigation into the Effects of the Suzuki Violin “Triangle” Method of Teaching (teacher-parent-child working collaboratively) as an Intervention for Military Children.

1. Service member’s full name, & name of participating child

_____

2. How many days a week did you practice with the participating child?
_____

3. What was the duration of the average daily practice session? Please write the duration in minutes.

_____

4. Please list any reasons for days that you were unable to oversee practice sessions with your child. (For example: I had to work late, my child was sick and could not practice).

_____

5. What is your perceived level of connectedness with the participating child this week? **Please circle one.** Extremely Connected, Very Connected, Connected, Slightly Connected, Not Connected.

Explain: _____

6. To what degree has the perceived level of connectedness changed this week as compared to before participating in this study? **Please circle one**. Extremely Improved, Very Improved, Improved, Slightly Improved, No Change in Improvement.

Explain:_____

7. What perceived relational hurdles did you encounter with the participating child during practice sessions this week?

_____

8. What perceived musical hurdles did you encounter with the participating child this week, specific to the prescribed practice requests from the teacher?

: _____

9. Did you spend more time with the participating child in practice sessions this week than you would have normally spent with him/her if they were not taking Suzuki music lessons?

Explain: _____

10. Please list observed benefits from practice sessions with your participating child this week.

_____

11. Please list changes you have observed in the participating child this week that are a result of this study, i.e. improved self-confidence, self-expression.
_____

12. If there are additional comments regarding this week’s practice or questions regarding this study, please include below.
_____

Appendix N: Service Member Exit Survey

Service Member Exit Survey: Intervention Via "Suzuki Triangle" Approach

Investigation into the Effects of the Suzuki Violin “Triangle” Method of Teaching (teacher-parent-child working collaboratively) as an Intervention Program for Military Children.

1. Service Member's Full Name

_____

2. What is the service member's perceived level of connectedness as a result of participating in the ‘Suzuki Triangle’ approach to teaching the violin? Circle which best applies.

Extremely Connected. Very Connected, Connected, Slightly Connected, Not Connected?

3. Does the Service Member perceive that the relationship with the Participating Child is Stronger than When You First Began?

_____

4. Did the Service Member's Quality Time with the Child Participant Increase in Duration because of the Study?

_____

5. Did the Service Member have a Definite and Clear Way to Interact with the Child Participant that encouraged Relationship?

_____

6. Would the Service Member Recommend the "Suzuki Triangle" Approach for Other Service members and their children?

_____

7. How Did the Service Member Benefit from this Study?

_____

8. Did you observe that participation in this study helped the military child? Explain your answer.

_____

_____

Appendix O: IRB Approval Letter

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

January 31, 2024

Heather Howard-Hannock
Rebecca Watson

Re: IRB Approval - IRB-FY23-24-532 Intervention and Reintegration Via "Suzuki Triangle" Approach: Military Children and Service Members Post-Deployment

Dear Heather Howard-Hannock, Rebecca Watson,

We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the following date: January 31, 2024. If you need to make changes to the methodology as it pertains to human subjects, you must submit a modification to the IRB. Modifications can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

For a PDF of your approval letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study Details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your stamped consent form(s) and final versions of your study documents can be found on the same page under the Attachments tab. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office