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USING OCCUPATIONAL THERAPY PRACTITIONERS' TRAUMA-INFORMED EXPERIENCES TO IMPROVE SCHOOL-BASED PRACTICE

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“I can be changed by what happens to me, but I refuse to be reduced by it.”

— *Maya Angelou*

DEDICATION

I dedicate this work to my grandmothers, Marie Sullivan and Jean Fry. For Grandma, whose lifelong dedication to education led to the completion of her master's degree at a time when most women could not pursue higher education. For Gram, who wished for and encouraged me toward educational and career independence which she did not have the opportunity to access. Both women shaped me into the person I am today and inspired my academic journey.

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ABSTRACT

This dissertation explores Trauma-Informed Care (TIC) from the perspective of school-based occupational therapists (SB-OTs) to support students who may be negatively affected by adverse childhood experiences (ACEs). TIC focuses on creating an interpersonal culture of safety and respect and is becoming more well known in healthcare and education. Using the Nominal Group Technique (NGT), experienced SB-OTs from across the US participated in focus groups to identify priorities for delivery of TIC in school-based practice. Additionally, the 5 NGT focus groups (n=24) identified facilitators and barriers to effective TIC in schools. Drawing from these findings, the Pediatric Remediation Outcomes: Trauma-Informed Principles (PRO-TIP) program is proposed. PRO-TIP centers on refining fine motor skills through school-based occupations, guided by occupational therapy (OT) theory, and caters to educators and SB-OTs. The program is designed to support students, educators, SB-OTs, and improve the wider workplace culture. By offering fundamental priorities on TIC aspects, this dissertation serves as a valuable resource for entry-level occupational therapists (OTs),

researchers, school staff, and administrators seeking to embrace a trauma-informed approach. The framework for the PRO-TIP program emerges as a practical, evidence-based tool designed to be further developed and piloted in elementary-school settings. With original research and a novel program design, this dissertation began with the end in mind: to help young, misunderstood learners with trauma related behaviors change their life trajectory for the better.

PREFACE

The journey to writing this dissertation was inspired by the children and adults I have met both professionally and personally who are frequently misunderstood in society. The women and children of Laurel House, who escaped situations of domestic violence and intimate partner violence, the transgender and gender nonconforming folks in recovery from active addiction at Resources for Human Development's Morris Home, the immigrant and refugee teenagers at Nationalities Service Center, the children and their family members in my current school district, and many more. The impacts of trauma are as unique as each individual, but so are the ways to build connections and foster resilience.

Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ACE…….....…….Adverse Childhood Experience(s)

ACOTE.....Accreditation Council for Occupational Therapy Education

ADL…….....Activities of Daily Living

AOTA.....American Occupational Therapy Association

AOTF……..….American Occupational Therapy Foundation

APC……..…...Article Processing Charge

AWE…….……..Accountability-Wellbeing-Ethics (framework)

CDC……..Center for Disease Control and Prevention

CIPP……..Context, Inputs, Process and Product (framework)

DLW……..Do-Live-Well (framework)

EBP…….....Evidence-Based Practice

EO……...……...Early Objectives

FM…….……Fine Motor

GAS……...……Goal Attainment Scale

IADL……..... Instrumental Activities of Daily Living

IDEA……...….Individuals with Disabilities Education Act

IEP……..…...Individualized Education Program

IO……...….Intermediate Objectives

IR…….…….Implementation Research

IRM……...Intentional Relationship Model (theory)

ITTIC…….……..Institute on Trauma and Trauma Informed Care

MTSS…….....Multi-Tiered System of Support

NGT……...Nominal Group Technique

NMT……..……Neurosequential Model of Therapeutics

OT(s)…….. Occupational Therapist(s)

OTP.....Occupational Therapy Practitioner

OTS……..Occupational Therapy Student(s)

PEOP…… ...People-Environment-Occupation-Participation (theory)

PFE…….....Principles Focused Evaluation

PRO-TIP……..…….... Pediatric Remediation Outcomes: Trauma-Informed Principles

QOL.....Quality of Life

RTI…….…...Response to Intervention

SAMHSA……Substance Abuse and Mental Health Services Administration

SB-OT…….School-Based Occupational Therapist

TBRI……..…….Trust-Based Relational Intervention

TIC……...Trauma-Informed Care

TU.....Temple University

TUS…….……Therapeutic Use of Self

CHAPTER ONE - Introduction

Section 1: Introduction

A cornerstone of occupational therapy (OT) practice is the client-centered approach. To do so, occupational therapy practitioners (OTPs) use formal and informal means of gathering information specific to each client and their valued and necessary occupations. Part of this process involves the identification of past experiences which can provide insight into understanding current issues according to the American Occupational Therapy Association (AOTA, 2020). Understanding clients' past experiences may include experiences of childhood adversity. According to Bartlett and Sacks (2019), childhood adversity is a broad term that refers to a wide range of circumstances or events that pose a serious threat to a child's physical or psychological well-being. This could include abuse, neglect, bullying, serious accidents, personal or familial mental or physical illness, parental incarceration or drug use, discrimination, extreme poverty, or community violence. Recent national data shows approximately half of the child population in the United States have experienced at least one Adverse Childhood Experience (ACE), with 1 in 5 having more than 2 ACEs. Additionally, women and several racial and ethnic minority groups are at an even greater risk for experiencing multiple ACEs (National Conference of State Legislatures, 2022).

Trauma is a possible outcome of exposure to adversity in which there are notable problems across multiple domains of development in a multisystemic way. It can negatively impact areas such as relationships and attachment, emotional responses,

physical health, executive functioning, self-concept, behavioral regulation, cognitive growth, and mental health. Much like each child, their trauma reactions are unique. When these childhood adversities occur early in life, are prolonged, severe, or a combination of those factors, the consequences can lead to detrimental physical and mental effects throughout the lifespan (Shonkoff & Garner, 2012).

Section 2: Background

Despite the high prevalence of childhood adversity across demographics, there are many OTPs who are in a position to help. Over half of the occupational therapist workforce works with the pediatric population, with almost 1 in 5 in school-based settings. (Whitney, 2020; AOTA, 2019). Yet, while more than half of school aged children have experienced trauma and over half of the OTP workforce are in school based settings, limited research exists regarding the unique role occupational therapists play in supporting children with traumatic experiences in school to mitigate the effects of childhood adversity. The limited literature available does not fully define the role of OTPs nor the required components for assuring effective TIC service delivery. OTPs are skilled in supporting clients across the lifespan. This includes mitigating occupational deficits of trauma as a result of childhood adversities. All aspects of the occupational therapy domain, which includes occupations, contexts, performance patterns, performance skills, and client factors, are considered with the client's context and are interrelated components affecting wellbeing and participation (AOTA, 2020). This allows

for the holistic consideration of each child, which sets occupational therapy apart as a distinct and valuable service (Hildenbrand & Lamb, 2013).

To be trauma informed as a school-based occupational therapy practitioner includes understanding the impact of trauma and applying the knowledge to their plan of care (Whiting, 2018). To acquire a better understanding of the impact of trauma through an OT lens, there are basic tenets to be understood and practiced. While there has been an increasing awareness and interest in recent years of OTPs providing trauma-informed care (TIC), there remains limited evidence created by and for OTPs specifically. Much of the school-based research on trauma-informed care comes from other professions or fields such as social work, psychology, and teacher-centered education (Alisic, 2012; Koslouski, 2021, Walkley & Cox, 2014).

Section 3: Statement of the Problem

Without an ample amount of evidence of TIC to support occupational participation and limited attention in Accreditation Council for Occupational Therapy Education (ACOTE) standards, TIC is not expanded upon in the classrooms that prepare entry-level OTPs. Subsequently, it is not taught or implemented widely across settings and populations despite its relevance to all aspects of the OT domain. Much of the training available is time consuming, costly, or somewhat inapplicable due to differing scopes of practice between professions. Despite the prevalence of trauma across every demographic in population, age, culture, and conditions, finding and accessing education on TIC is up to the practitioner, rather than being included in foundational literature to

the profession. Although many concepts go hand in hand with the client-centered holistic approaches taught to entry-level practitioners in higher education, explicit TIC principles and suggestions for site or population-specific implementation strategies are typically not included, or are implemented inadequately (Holman, Esposito & Shepherd, 2022).

Not using a TIC lens or using it inadequately can unintentionally retraumatize a child or limit their buy-in and participation in OT services. This can lead to decreased wellbeing and participation across school contexts. These deficits may present as emotional dysregulation, academic difficulties, or a lack of fulfilling social participation (Whiting, 2018). Whiting (2018) expands upon potential detriments of not using a TIC approach; OT practitioners who are unaware of potential signs of reactions linked to traumatic experiences may respond ineffectively or further exacerbate student's behavioral shifts and find themselves in power struggles. Without an understanding of how trauma may present in young learners and how to best respond, OTPs may fail to see the whole child and optimally support them. This can lead to persistent difficulties in school with access to social participation, self-regulation, and academic achievement to participate and engage positively in school-based settings.

Section 4: Role of Occupational Therapy

Since the effects of childhood trauma on development and consequences to health and wellbeing and are directly related to continuing or exacerbated dysfunction in adulthood, SB-OTPs have a professional ethical obligation to recognize the potential effects of trauma, create safe and meaningful connections with each child, develop or

improve spaces to support learning and development, and collaborate with team members for consistency across the school environment.

For OTPs who seek advanced training, they would be able to "treat children who have experienced trauma and collaborate with children who are survivors of trauma and the adults who serve them to develop skills and techniques to safely and proactively avoid crises, and to develop reactive strategies to safely work through crisis situations to minimize additional trauma" (AOTA, 2015). While individual training and clinical experience is a valuable tool, evidence-based practice (EBP) is necessary to move the profession forward and create standards of best practice within the field. This lack of available, accessible, and OT specific information is a detriment to practitioners and clients alike. Whiting (2018) states without an understanding of trauma and its multiple effects it may have on students and their learning, "those working with the student may not connect problem behaviors to trauma in a non-informed situation, when a disciplinary response occurs, it is the opposite of the promotion of positive behavior management systems that the student requires." By understanding the potential dysregulation in children who experienced or continue to experience childhood adversity, SB-OTs "are able to adapt to provide a non-reactive, predictable response in a relationship-based interaction" (Whiting, 2018).

Occupational therapists are uniquely qualified to support students in school-based practice given their training and proficiency in utilizing meaningful activities to promote health and wellbeing. Children's occupations within a school include academic-driven

occupations, play and social participation, and activities of daily living (ADLs), such as bathroom hygiene, or instrumental activities of daily living (IADLs), such as taking the bus or cleaning up a work station . For students, any of those occupations can be, and frequently are, disrupted by an adverse event or the presence of pervasive trauma. OTPs are specialists in understanding the nuances and interplay of the ever-changing dynamics between the person, their required and preferred meaningful occupations, and the environment to facilitate performance.

This is explored in the context of the person-environment-occupation performance (PEOP) theory (Christiansen, Baum, & Bass-Haugen, 2015). Through this holistic and top-down model, the PEOP theory employs a biosocial approach to client-centered care; it considers both intrinsic and external factors of a person within their environment to guide effective care. Traumatic experiences or prolonged adverse situations can disrupt all aspects of the occupational therapy domain, which support engagement, participation, and health (AOTA, 2020). The PEOP is a guiding theory behind this research, as the PEOP model was used in considering both OTPs and how OTPs consider PEOP when using a trauma-informed lens to service delivery. This model is a key consideration to creating a plan of care, which is not only centered around areas of difficulty or dysfunction. SB-OTs are in a unique position; they can offer a safe place to work on health promotion through meaningful occupations and contextual considerations and adaptations to disrupt or reduce the effects of trauma through a TIC lens.

Many of the initial days of what we now refer to as the OT profession stemmed from best practice to treat the effects of trauma in individuals or groups. The profession emerged during World War I, when "shell shocked" soldiers were returning home and were supported in their healing through meaningful occupations (Fette, Lambdin-Pattavina, & Weaver, 2019). "Shell shocked" behaviors later became understood under the broad diagnosis of post-traumatic stress syndrome. Considerations of the whole person, mental health, occupational functioning, and the contexts for task performance were all considered to facilitate health and wellbeing after outside experiences changed them. While it may not be the trauma of war, for many students, trauma happens at home or in the community.

Section 5: Proposed Solution: Central Commitment to Bridging Gap

My preliminary vision for addressing this issue is to gather quantitative and qualitative data either via surveys, focus groups, or both to gather data to guide SB-OTPs as well as to be shared with occupational therapy students (OTS) preparing for entry-level practice to define what it means to be an effective TIC practitioner in school-based service delivery. Additionally, I will explore personal and systemic strengths and barriers to effective implementation of TIC. It is my intention to use a consensus building method, the Nominal Group Technique (NGT), to ensure cohesive perspectives of SB-OTPs to gain greater insight into priorities for strengths, barriers, and key elements of service delivery to guide future research and program development.

I plan to expand my own knowledge and integrate it with the questionnaire or focus group questions by learning more about specific trauma-interventions and frameworks (Trauma-Based Theory/Program branch). I would also consider gaining additional certifications in subsections of TIC. In addition to the knowledge I would seek from professionals in the field using TIC to guide their practice, I want to integrate the certification knowledge and a comprehensive and OT aligned TIC theory as well as opportunities to share via publication and education (Educating branch) and proficiency in data collection and conversations with experts (Gathering data branch) to create evidence-based research to guide the future development of a clinical education tool for working and future SB-OTs and school staff.

Figure 1
Initial Mind-Map Guiding the Dissertation Development

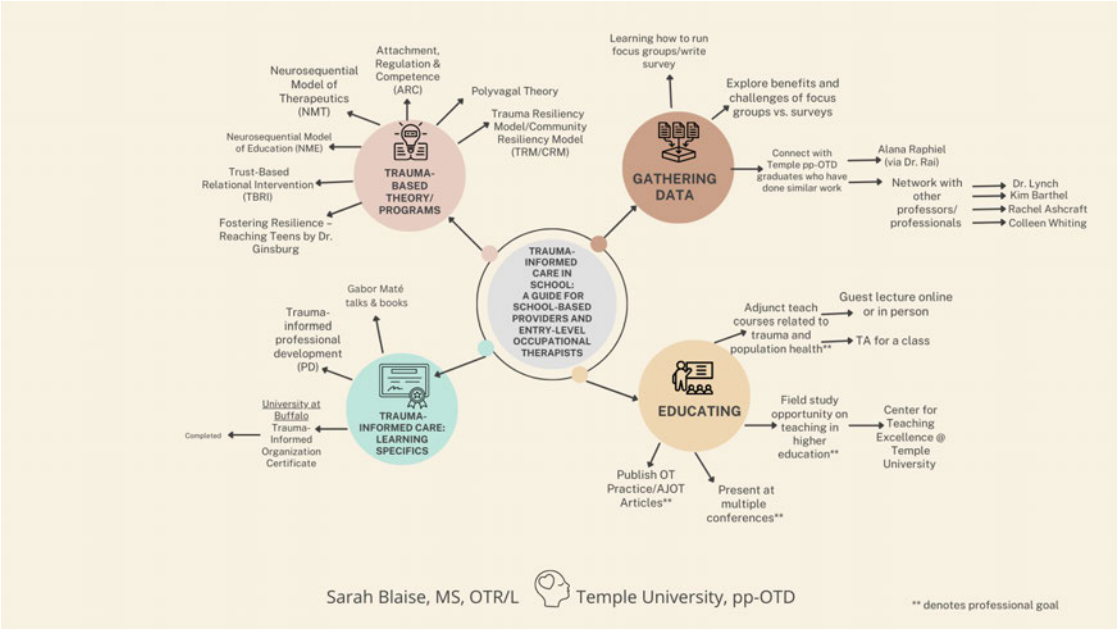

Figure 1. Image depicting the four main branches of the mind map: Gathering data, Educating, Trauma-Informed Learning Specifics, and Trauma-Based Theory

CHAPTER TWO: Project Evidence and Theoretical Base Supporting Central Commitment

Section 1: Introduction

To solve a problem, first a comprehensive understanding of the problem itself and the context in which the problem exists. Chapter Two presents a current problem affecting students and OTPs. In this case, the problem a lack of evidence specific to the OT population and within the school setting regarding effective use of trauma-informed care, contributing factors, theoretical frameworks, evidence, and previous efforts to support the problem are considered. A visual illustration of the model of the problem (Figure 2) demonstrates the progression in which the problem occurs and the subsequent consequences.

Figure 2

Visual Model of the Problem with Brief Descriptions

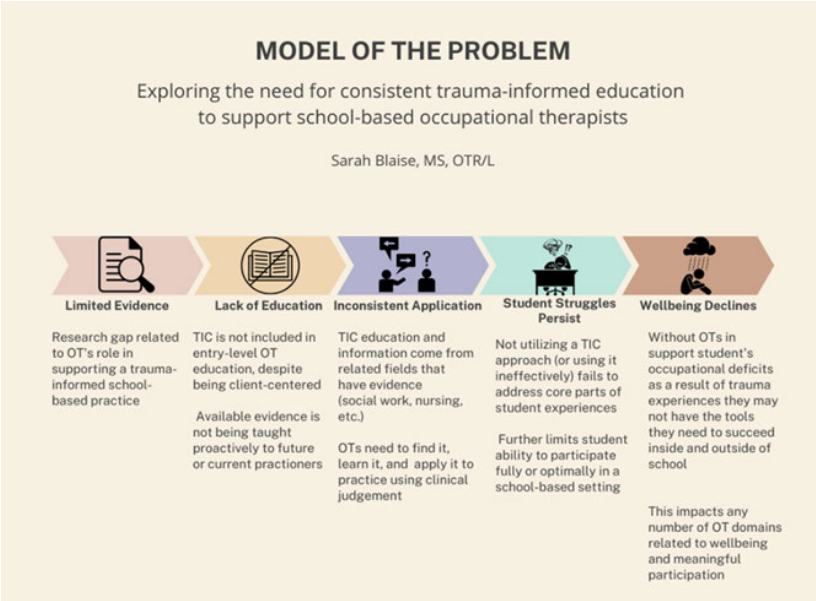

Figure 2. This content offers a breakdown of the areas impacting delivery of TIC by SB-OTs.

Section 2: Model of the Problem

While in the past few years there has been an increase in interest surrounding the role occupational therapy can play in trauma-informed care (TIC), there remains limited evidence created by and for OTs, especially specific to the school-based setting. Without an adequate amount of evidence guiding effective application, trauma-informed care is not taught to entry-level occupational therapy students (OTS). Although many concepts and application ideas go hand in hand with the client-centered holistic approaches that are taught to entry-level OTS in higher education, explicit TIC specific content is not mandatory. Evidence-based practice (EBP) is necessary to move the profession forward and create standards of best practice within the field. Whiting (2018) states without an understanding of trauma and its multiple effects on students and their learning "those working with the student may not connect problem behaviors to trauma in a non-informed situation, when a disciplinary response occurs, it is the opposite of the promotion of positive behavior management systems that the student requires".

Without an understanding of what to look for and how to respond, OTs fail to see the whole child and their context to support them optimally and holistically. This can lead to persistent difficulties in accessing social participation, self-regulation, and academic understanding to be successful in school-based settings.

SB-OTs must take on a strengths-based TIC approach. This includes focusing on positive experiences, protective factors, and scaffolding challenges in a playful, engaging, sensory-rich environment. Without this, overall student wellbeing can decline due to

occupational deficits including but not limited to emotional dysregulation, academic difficulties, and a lack of fulfilling social participation (Whiting, 2018). Furthermore, without considering the greater contexts of school and family, the practitioner risks targeting intervention at just the child instead of a multi-tiered response (Lynch et al, 2020).

Section 3: Theory Supporting Problem and Solution

The frameworks I first identified to support my understanding of the problem are the Accountability-Wellbeing-Ethics (AWE) framework by Taff et al. (2014) and the Do-Live-Well (DLW) framework by Moll et al. (2015). The major principles of the AWE framework are designed to be applied and used in "education, research, and practice for an increasingly globalized occupational therapy profession" (Taff et al., 2014) Through this framework, accountability occurs by recognizing health disparities, disease, and disability for individuals and collectively on a global scale. The AWE framework emphasizes the interplay of both science and ethics by prioritizing the consideration of quality of life (QOL) and individuals' lived experience. The principles of the DLW framework proposed by Moll et al. (2015) emphasize the evidence supporting the interplay between daily occupations and health and wellbeing; its purpose is to "facilitate individual reflection, community advocacy, and system-level dialogue about the impact of day-to-day occupations on the health and well-being" of individuals.

In my proposed model of the problem, one of the first steps in the sequence was identifying and addressing the lack of occupational therapy evidence available for school-based practitioners using a trauma-informed care (TIC) approach. The AWE framework by Taff et al. (2014) is designed to be used in research and education; it is specific to occupational therapy and considers ethics, individual and collective responsibility, and prioritizing the clients' lived experiences. The DLW framework by Moll et al. (2015) informs a component of using a trauma-informed approach specific to the occupational therapy lens by recognizing the dynamic of participation in daily occupations and the subsequent correlation to wellbeing.

The AWE framework by Taff et al. (2014) allows me to clearly see the problematic nature of too little profession-specific evidence on TIC as it is rooted in understanding accountability as professionals for individuals and groups experiencing health disparities using a client-centered approach. Occupational therapists have an ethical responsibility and are professionally accountable to improve participation and wellbeing. Individuals or groups with traumatic experiences are affected by significantly more frequent and intense health disparities, disease, and disability throughout their lives. Recognizing the professional ethical responsibility in this framework highlights the need to address this problem on smaller and larger scales.

The framework that helps me to see viable solutions is within the DLW framework proposed by Moll et al. (2015). In my dissertation, I intend to determine current school-based occupational therapists' perceived therapists perceived

understanding of TIC, the areas of need, and the barriers to implementation. The DLW framework's purpose is rooted in communal discussion, reflection, and advocacy of daily occupations and wellbeing (Moll et al., 2015). By organizing and analyzing data procured in focus groups, I will be able to create and facilitate the space for reflection and discussion necessary to inform new evidence. That evidence will then be used to advocate for the profession's responsibility to engage in TIC approaches in schools with fidelity.

Section 4: Guiding Questions Solidifying Understanding of the Problem

Question 1: Is there a lack of TIC specific evidence for OT practitioners?

Yes, limited results populated on online databases for quality research articles such as PubMed, PsychArticles, and Education Information Resources Center when searching information about TIC including search terms such as "occupational therapy", "occupational therapist", "OT". Of the available evidence including OTs, the authors of the article and the focus of the article was around other health professionals, with OTs included peripherally.

Question 2: Is there evidence that TIC literature primarily comes from other disciplines?

Yes, when the OT specific search terms were eliminated from online research resources, the amount of available research increased significantly. The professions most associated with research related to TIC included social work, nursing, public health, and education.

Question 3: Is there evidence that TIC is not taught in entry level OT curriculum?

Yes, according to the Accreditation Council for Occupational Therapy Education (ACOTE) which "establishes, approves, and administers educational standards to evaluate occupational therapy and occupational therapy assistant educational programs," limited attention is given to trauma-informed care. As it is not mentioned in the accrediting standards, it is not a necessary prerequisite topic to be covered in accredited programs.

Question 4: Is there evidence that a lack of TIC evidence is contributing to a lack of TIC implementation in school-based OTs?

Yes, available research suggests favorable opinions toward the use of TIC in schools, but that SB-OTPs feel that TIC in schools is either ineffectively implemented or that they would benefit from additional trauma-informed specific training (Holman et al., 2022; Rosa et al., 2022).

Section 5: Guiding Questions to Support Evidence Review for Previous Interventions, Programs or Efforts to Address the Problem

Question 1: What are occupational therapy practitioners (OTPs) __*__towards implementation of TIC in school-based practice?

* Perspectives; perceived competence; areas of need; attitudes; barriers; supports

The vast majority of OTPs hold favorable opinions of TIC across practice settings. Additionally, many OTPs consider themselves "somewhat" or "very competent" in responding to patients' distress or strong emotions calmly in acute trauma settings. The biggest barriers in acute care include: time constraints, need of training, confusing information and evidence on trauma-informed practices, and worry about further upsetting or re-traumatizing patients (Bruce et al., 2018) In schools, Multi-tiered supports and team collaboration facilitate OTPs application of TIC (Lynch et al., 2020; Pillar & Achord, 2022) through most OTPs recognize there is very little available evidence on the role of OTPs in school-based practice using TIC, and a lack of training and feeling underprepared, and a confusion of the role OTPs play specifically related to TIC (Pillar & Achord, 2022; Holman et al., 2022; Barnes et al., 2003). Many OTPs recognize the importance of using a TIC approach, though most are not consulted on educational cases including maladaptive responses to trauma and are more likely to treat students in school

with physical rather than psychosocial occupational deficits (Whiting, 2018; Rosa et al., 2022; Holman et al., 2022).

Question 2: What is the evidence on trauma's impact (short and long-term) educational occupations and participation?

Across professions, negative and lifelong effects of trauma are documented with substantial evidence, beginning with the original study linking adverse childhood experiences (ACEs) to lifelong health detriments (Felitti et al., 1998). Occupations impacted may include peer and adult socialization and play, executive functioning and academic achievement, fine and gross motor skills, sleep and hygiene, arousal and sensory processing and self-regulation, and memory and inhibitory control and envisioning a future (Frederick, 2022; Whitney, 2020; Rosa et al., 2022; Wade et al., 2018; Huot et al., 2022; Petrenchik & Weiss, 2015) Additionally, participation in sports and hobbies, school attendance, and homework completion can be negatively affected (Petrenchik & Weiss, 2015; Frederick, 2022).

Question 3: What evidence is there to offset the impact of childhood trauma?

Collaboration for consistency between the family and educational teams, direct or indirect intervention, multi-tiered supports in the classroom all can mitigate negative effects of childhood trauma (Whiting, 2018; Piller & Achord, 2022, Lynch et al., 2020).

Evidence to support students also may include the use of mindful based stress reduction and sensory based techniques, adapting the environment, routines, using a therapeutic use of self, developmental skill building, creating safe and nurturing physical and social environments, promoting pro-social peer socialization (Sibinga et al., 2016; Piller & Achord, 2022; Walkley & Cox, 2013; Petrenchik & Weiss, 2015).

Question 4: How are OTPs specifically equipped to support TIC in school-based practice settings?

OTPs can support students in school-based settings by advocating for students by collaborating with a multidisciplinary team, doing task and environmental analysis and adaptations, creating or modifying predictable routines, teaching self-regulation and sensory-based strategies or providing direct occupational therapy services for developmental skill building. (Whiting, 2018; Lynch et al., 2020; Walkley & Cox, 2013; Huot et al., 2022; Frederick, 2022). By receiving support individually, in a small group, or at the classroom or school-wide levels, OTPs can support individual and group programming to maximize the benefit to students using a TIC approach. This considers that using a TIC approach benefits all students, not just ones with a confirmed history of trauma. OTPs are skilled in creating programs which target occupational performance patters; they consider habits, roles, and routines to remediate or build competency in

skills negatively impacting performance or access to participation (Lynch et al., 2020; Whitney, 2020).

Section 6: Conclusion

Little evidence exists by the OTP research community regarding current perspectives on TIC, even as to a consistent definition of it. This limited research to the OT profession has several wide-reaching implications. First, despite being positioned to help children in a unique way due to a specialized skillset, the majority of the research emerging on TIC is coming from other professions. Consequently, the lack of evidence-based research specific to the OTP community leads to TIC not being a necessary topic to be covered in OT programs accredited by ACOTE and therefore not taught to entry-level practitioners. This positions TIC as a specialty area, rather than a universal approach to care which benefits all students. As a result, few practitioners feel competent and implement TIC in schools with fidelity.; this leads either to not using TIC at all or using it ineffectively. In either scenario, students are not having their needs met optimally, and their wellbeing may decline as a result.

CHAPTER THREE: Description of Central Commitment

Section 1: Background of Program

Pediatric Remediation Outcomes- Trauma Informed Practice (PRO-TIP) is a program designed for elementary school staff including counselors, paraprofessionals, special and regular education teachers, and related service providers to support students with fine motor deficits through activities centered around trauma-informed principles.

According to The Institute on Trauma and Trauma-Informed Care (ITTIC)(n.d.), trauma-informed care (TIC) "understands and considers the pervasive nature of trauma and promotes environments of healing and recovery rather than practices and services that may inadvertently re-traumatize." A TIC approach recognizes the many manifestations of trauma, and the role trauma may have in function and ability in valued occupations. As Purkey et al. (2018) state, "Trauma-informed care is not trauma-specific care; it does not propose to heal the trauma nor even to address it directly. It does not imply [the]… need to be trauma specialists." For this reason, this program may be used with children who experienced trauma, but a disclosure of a trauma-history is not a prerequisite. The PRO-TIP program is designed to support all students, with or without known traumatic experiences, to support their academic functioning using a framework that supports the key principles of trauma-informed care. The key principles are safety, choice, empowerment, collaboration, trustworthiness, and understanding cultural, historical and gender issues (CDC, 2020; Simpson & Green, 2014).

Current research substantiates the need for occupational therapists to have and use a trauma-informed approach when working with pediatrics. Frederick (2022) found most occupational therapists surveyed had over 1/5 of their caseload as children with traumatic experiences and 100% found the traumatic experiences negatively impacted their participation in school. Wade et al. (2018) found children with a history of maltreatment had rates of gross and fine motor impairment 5-7 times higher than expected norms. It is this research that led to the development of this program. Designed by an occupational therapist, this program is intended to be used by any adult in the school setting to be able to lead activities for young learners (K-2) with fine motor deficits, grounded in occupational therapy theories and trauma-informed principles.

Section 2: Program Goals

Goals developed for the PRO-TIP were informed by the need for TIP to influence the performance of educators and students. Knowledgeable practitioners are an essential component to support student improvements. The student improvements create results that support the efficacy of the program. For this reason, goals target both the educators and the students to promote the use of TIP in program implementation.

Goal 1: Students will demonstrate an increase of a 1–2-point increase in ability and accuracy in school-based fine motor tasks from the start to the end of the six-week program as measured by Goal Attainment Scales (GAS) based on their areas of difficulty.

Goal 2: Increase persistence/ window of tolerance for learning by 1-2 points on a GAS in students with delayed fine motor skills and trauma histories from the start to the end of the six-week program.

Goal 3: Improve school culture and educator perspectives on using TIP to support students from the initial in-service training to the completion of the initial six-week program as demonstrated by as demonstrated by at least a 30% improvement measured by matching paired t-tests over the pre-test scores.

Section 3: Program Strategies

Strategies to accomplish these goals include initial education to support and benefit the educators implementing the program and the students participating in the program.

Strategy 1: Educators' Education

1a. Educators learn about TIC & TUS principles.

1b. Educators learn about PEOP, KAWA, and IRM theories.

Strategy 2: Educators Implementation

2a. Educators support students with direct skill practice in fine motor skills embedded into TIP-centered activities.

2b. Educators prioritize student collaboration to build a routine for future sessions.

2c. Educators support students with direct skill practice in fine motor skills embedded into TIP-centered activities.

Strategies to support the EOs, IOs, and goals include:

Learning theories to support staff: Cognitive load theory suggests optimal learning occurs when it is connected to mental schemas and structures that help recall and navigate through complex content quickly and efficiently, rather than relying on memorization. Presenting information in this way to educators, with multiple examples and case studies, graphics, and mnemonic aids (Rothwell, 2008).

Knowledge of Occupational Therapy Theories/Frameworks: Understanding PEOP (Baum, Christiansen, & Bass, 2015), KAWA (Iwama, Thompson, & Macdonald, 2009), and IRM (Taylor, 2008) serve as foundational knowledge through which this program was created.

Staff Support: To implement the program, enough staff must be available to implement the program with fidelity in individual or small group settings.

Workplace Culture: A program site that values and supports staff in working together to mitigate the effects trauma may play in fine motor delays with young students.

Leadership and Administrative support: Higher level buy-in is a necessary program component to support staff in the training, communicating on a larger level to use in the community and with community stakeholders.

Section 4: Conclusion

The central commitment in the creation of the PRO-TIP artifact centers on developing a foundational program any educator can use. It is designed to support kindergarten through second grade students with fine motor skill delays using trauma-informed principles and guided by OT theories and concepts. The PRO-TIP program's goals are to improve fine motor skills and increase persistence in students, as well as improve school culture to be more trauma sensitive. The primary strategies are training the educators and effective educator implementation. To support the early, intermediate, and long-term objectives of the program supports to effective program implementation are suggested. This includes adequate staff support, a workplace culture seeking to be more trauma-informed, leadership and administrative support, and an understanding of learning theories and OT theories.

CHAPTER FOUR: Outcome Measurement Plan for Artifacts

Section 1: Background of Program

Pediatric Remediation Outcomes- Trauma Informed Practice (PRO-TIP) is a program designed for elementary school staff including counselors, paraprofessionals, special and regular education teachers, and related service providers to support students with fine motor deficits through activities centered around trauma-informed principles.

According to The Institute on Trauma and Trauma-Informed Care (ITTIC)(n.d.), trauma-informed care (TIC) "understands and considers the pervasive nature of trauma and promotes environments of healing and recovery rather than practices and services that may inadvertently re-traumatize." A TIC approach recognizes the many manifestations of trauma, and the role trauma may have in function and ability in valued occupations. As Purkey et al. (2018) state, "Trauma-informed care is not trauma-specific care; it does not propose to heal the trauma nor even to address it directly. It does not imply [the]… need to be trauma specialists." For this reason, this program may be used with children who experienced trauma, but a disclosure of a trauma-history is not a prerequisite. The program is designed to support all students, with or without known traumatic experiences, to support their academic functioning using a framework that supports the key principles of trauma-informed care. The key principles are safety, choice, empowerment, collaboration, trustworthiness, and understanding cultural, historical and gender issues (CDC, 2020; Simpson & Green, 2014).

Current research substantiates the need for occupational therapists to have and use a trauma-informed approach when working with pediatrics. Frederick (2022) found most

occupational therapists surveyed had over 1/5 of their caseload as children with traumatic experiences and 100% found the traumatic experiences negatively impacted their participation in school. Wade et al. (2018) found children with a history of maltreatment had rates of gross and fine motor impairment 5-7 times higher than expected norms. This research led to this program's development. Designed by an occupational therapist, this program is intended to be used by any adult in the school setting to be able to lead activities for young learners (K-2) with fine motor deficits, grounded in occupational therapy theories and trauma-informed principles that targeted skills needed for elementary classroom participation.

Section 2: Full Logic Model

The logic model (Figure 4) illustrates the relationship between the program components and anticipated activities, strategies, and outcomes. The logic model will be used to support implementation and evaluation efforts.

Figure 3
Logic Model

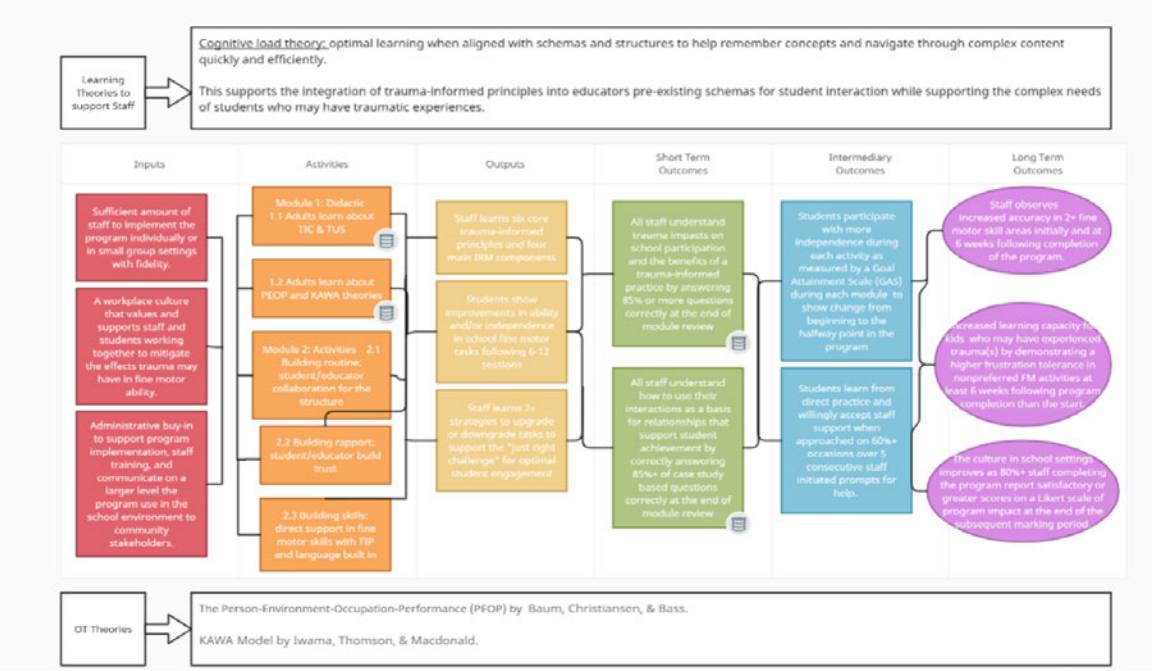

Figure 3. Provides a step-by-step overview of the logic leading to the design of PRO-TIP.

Section 3: Program Goals

Goals developed for the PRO-TIP were informed by the need for TIP to influence the performance of educators and students. Without knowledgeable practitioners, students cannot be supported properly, and without student improvements, educators will not see the value of the principles and programming. For this reason, goals target both the educators and the students to promote the use of TIP in program implementation.

The goals are:

Goal 1: Students will demonstrate an increase of a 1–2-point increase in ability and accuracy in school-based fine motor tasks from the start to the end of the six-

week program as measured by Goal Attainment Scales (GAS) based on their areas of difficulty.

Goal 2: Increase persistence/ window of tolerance for learning by 1-2 points in students with delayed fine motor skills and trauma histories from the start to the end of the six-week program as measured on a GAS.

Goal 3: Improve school culture and educator perspectives on using TIP to support students from the initial in-service training to the completion of the initial six-week program as demonstrated by as demonstrated by at least a 30% improvement measured by matching paired t-tests over the pre-test scores.

Section 4: Program Strategies

Strategies to accomplish these goals include initial education to support and benefit the educators implementing the program and the students participating in the program.

Strategy 1: Educators' Education

1a. Educators learn about TIC & TUS principles.

1b. Educators learn about PEOP, KAWA, and IRM theories.

Strategy 2: Educators Implementation

2a. Educators support students with direct skill practice in fine motor skills embedded into TIP-centered activities.

2b. Educators prioritize student collaboration to build a routine for future sessions.

2c. Educators support students with direct skill practice in fine motor skills embedded into TIP-centered activities.

Section 5: Program Theory

The PRO-TIP program has been developed with the intention to meet the goals at the end of six weeks by means of accomplishing early objectives (EOs) and intermediate objectives (IOs). There are four EOs/IOs, which connect to goals. Some of the EOs and IOs address multiple goals and may be included more than once for corresponding goals.

Goal 1: Increase student ability and accuracy measured by individualized GAS in school-based fine motor tasks from the start to the end of the six-week program, as evidenced by matching paired t-tests from comparing group samples before and after the program in various FM skills.

- **EO.1:** By the completion of the 3rd session, educators will correctly identify 2+ ways relationship building has positively impacted student learning.
- **IO.1:** By the middle of the program, more than half of the students will have moved 1+ columns toward independence on 1 or more FM skill areas, as evidenced by GAS and educator documentation via PFE Questionnaire (Appendix C.)

Goal 2: Increase persistence/ window of tolerance for learning by a 1-2 point increase in GAS in students with delayed fine motor skills and trauma histories from the start to the end of the six week program, as evidenced by matching paired t-tests from comparing group samples before and after the program via goal attainment scales (GAS) for the amount of assistance/prompting required for task completion.

- **EO.1:** By the completion of the 3rd session, educators will correctly identify 2+ ways relationship building has positively impacted student learning.
- **EO.2**: By the end of the in-service training and prior to the first student session, educators will demonstrate competency in identifying behaviors connected to trauma in young children with 80%+ accuracy as measured by a pre and post chapter quiz of true/false questions.
- **IO.1:** By the middle of the program, more than half of the students will have moved 1+ columns toward independence on 1 or more FM skill areas, as evidenced by GAS and educator documentation via PFE Questionnaire (Appendix C.)
- **IO.2:** By the middle of the program, educators will self-identify 2+ ways to support students' independence and engagement as measured by the PFE questionnaire (Appendix C.)
- **IO.3:** By the middle of the program, educators will self-identify 5+ instances of scaffolding tasks to promote student success as documented in the PFE Questionnaire (Appendix C.).

Goal 3: Improve school culture and educator perspectives on using TIP to support students from the initial in-service training to the completion of the initial six-week program, as evidenced by at least a 30% increase on matching paired t-tests from comparing scores from the same group before and after program in-service and program implementation as well as a PFE questionnaire (Appendix C.) in the program manual.

- **EO.1:** By the completion of the 3rd session, educators will correctly identify 2+ ways relationship building has positively impacted student learning.
- **EO.2**: By the end of the in-service training and prior to the first student session, educators will demonstrate competency in identifying behaviors connected to trauma in young children with 80%+ accuracy as measured by a pre and post chapter quiz of true/false questions.
- **IO.1:** By the middle of the program, educators will self-identify 2+ ways to support students' independence and engagement as measured by the PFE questionnaire (Appendix C.)

- IO.2: By the middle of the program, educators will self-identify 5+ instances of scaffolding tasks to promote student success as documented in the PFE Questionnaire (Appendix C.).

- IO.3: By the middle of the program, educators will self-identify 4+ ways relationship building has positively impacted student learning as documented in the PFE Questionnaire (Appendix C.).

Strategies to support the EOs, IOs, and goals include:

Learning theories to support staff: Cognitive load theory suggests optimal learning occurs when it is connected to mental schemas and structures that help recall and navigate through complex content quickly and efficiently, rather than relying on

memorization. Presenting information in this way to educators, with multiple examples and case studies, graphics, and mnemonic aids (Rothwell, 2008).

Knowledge of Occupational Therapy Theories/Frameworks: Understanding PEOP (Baum, Christiansen, & Bass, 2015), KAWA (Iwama, Thompson, & Macdonald, 2009), and IRM (Taylor, 2008) serve as foundational knowledge through which this program was created.

Staff Support: In order to implement the program, enough staff must be available to implement the program with fidelity in individual or small group settings.

Workplace Culture: A program site that values and supports staff in working together to mitigate the effects trauma may play in fine motor delays with young students.

Administrative support: Higher level buy-in is a necessary program component to support staff in the training, communicating on a larger level to use in the community and with community stakeholders.

Section 6: Evaluation Approaches

For the Pediatric Remediation Outcomes- Trauma Informed Principles, the focus is to utilize trauma informed principles while supporting students increase their engagement and growth of fine motor tasks used in school-based practice. The purpose of program evaluation is two-fold: to determine the efficacy of the program for the educators using trauma informed principles to make positive changes and for students to be responsive to

the educators and improve their fine motor ability. The approaches to best support the end goals for educators and students will be the Principles-Focused Evaluation (PFE) by Patton (2017) when evaluating the use of trauma informed principles and the Context, Inputs, Process and Product (CIPP) Evaluation by Stufflebeam (2003) when evaluating the efficacy of the program on fine motor development.

The PFE is an appropriate approach to use as the evaluation seeks to determine how key principles are implemented in addition to "outcomes and broader impacts" according to Giancola (2021). The CIPP Evaluation by Stufflebeam (2003) improves the program by evaluating the context, inputs, process, and product. It is aimed at improving programs at every step of the way; it would be ideal for a new program and to be used regularly with the program to continue to enhance it via "qualitative and quantitative methods" (Giancola, 2021).

For the evaluation of the PRO-TIP program, the PFE will be utilized with educators to ensure they are effectively using the six trauma-informed principles: safety, trustworthiness and transparency, peer support, collaboration and mutuality, empowerment, and choice, and finally, cultural, historical and gender issues (CDC, 2020). With the principles already defined, the next steps in using the PFE effectively within this context would be for the evaluator to present questions based on the principles regarding how meaningful they are to the educators and how much they are being adhered to? (New Tactics in Human Rights, n.d.) then, there will be time at the start, middle, and end of the program implementation to look for and reflect on observations of

behaviors demonstrating each principle in use. The findings will be documented and utilized to support any program modifications to enhance the use of one or more of the guiding principles of a trauma-informed approach throughout the program.

The CIPP (Stufflebeam, 2003) will be used in the initial development of the PRO-TIP program when evaluating context to clarify the long terms goals focusing on the problems to be solved related to fine motor skill improvement and increased participation and engagement with staff and the program activities. The *context evaluation* would consider the needs assessment, environmental factors, and available resources in the planning of the program. The *inputs* would support the findings of the context evaluation; this is where financial information is considered, schedules are developed for the program implementation based on educators' availability and time in the day to support students. The input evaluation provides information towards when the educators are presented with the materials, taught how to implement the program, and are mentored and supported in program delivery.

The *process evaluation* seeks to evaluate how effectively the input occurs in the program; this component looks at if everything in the program is flowing as it should. After the program is completed with the students, the *product evaluation* begins; the performance changes such as levels of independence and willingness to participate from students, and a comparative look is taken between the planned goals for the program and whether the goals were met, as well as to what extent and in what capacity were they met for the students? It is important at this step that the evaluators look for overall patterns

and trends to see if any key component of the program needs to be changed to meet the goals more effectively. It is also in this phase of the evaluation that the evaluators consider "whether the program is sustainable in terms of context, inputs, and processes" (Hashaw, 2020).

Section 7: Evaluation Design

The evaluation design selected for this program is a single-group non-experimental design. Due to the evaluation occurring at a single placement for initial evaluation, the evaluation is focused on looking on changes, or lack of changes within the same student group that participated in the program will be evaluated to look for causation between the program implementation and the expected outcomes. Without additional measures to bolster the rigor of the design, changes found within the group could be attributed to any number of factors that may not have anything to do with the program implementation. Descriptive statistics will be used to analyze themes occurring in qualitative data collected. For quantitative data collected, matched paired t-test will be used to compare same group scores before and after learning.

In a single-group non-experimental design, one disadvantage is there is not a group to compare to that did not participate in the program or that received alternative programming for comparison. For this reason, this design is weaker than some of its experimental or quasi-experimental counterparts, which supports the findings through having a structured comparable sample. To strengthen this potential deficit, there will be additional program support. In this program evaluation, the PRO-TIP is strengthened using a logic model. Additionally, quality data gathering at the onset of the program in combination with intermediate and long-term goals supports the "theoretical association between the program and long-term outcomes" according to Giancola (2021). By adding in the logic model and quality data collection throughout the program from the start of

the program design to the post implementation data collection, the credibility of the program improves. The evaluation of the program runs concurrently with the program implementation. The program is designed to meet 2-3 times per week for 6 weeks. For this reason, the length of the initial evaluation will be 8 weeks, which includes 2 weeks after the final group session to analyze all the data gathered. The total time for evaluation completion will be 16 weeks, as half of the groups begin their program implementation when the other group finishes. A table depicting a program timeline is listed below as Table 1.

Table 1
Proposed Program Timeline for Pilot PRO_TIP Groups

Trial	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Group #1	In-service and didactic learning Program starts	Program	Mid-point of program	Program	Program	Program Ends	Data Analysis	Data Analysis

Trial	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Group #2	In-service and didactic learning Program starts	Program	Mid-point of program	Program	Program	Program Ends	Data Analysis	Data Analysis

Table 1: Proposed Program Timeline for Pilot PRO-TIP Groups

Total Time: 16 weeks

The nonexperimental single study design of the PRO-TIP for program evaluation will be used with 10 groups. Each group will look at the results found both in the one educator leading the group, and with the 3-5 students they completed the program with at a given time the program was explicitly designed for students in kindergarten through second grade, with or without a disclosed trauma history with fine motor delays.

Evaluation Enrichments

Participant journals: In addition to the data collected during and after each session, educators can complete a supplemental workbook to gather their thoughts on the program from a qualitative perspective. The guides will provide open-ended questions to gauge educator investment and perspectives throughout the program, including prior to and after the program's completion. Participant journal opportunities will yield six entries, one for each week of the program. Themes will be coded and analyzed in Dedoose.

Student check-in/check-out booklet: In keeping with the trauma-informed principles of safety, collaboration, and trust, the students are provided a small notebook with different faces expressing different feelings. The faces correspond to ordinal rankings. An example of the facial expression measure can be found in Appendix C. At the start and the end of the session, the students will identify their emotions with adult support. Adult support is guided by helping students connect their behaviors to an emotional state. (For example: “I see you are jumping and have a big wide smile, are you feeling excited?” or “I can see you have your eyebrows together and you stomped in the room, are you feeling frustrated?). Descriptive statistics will be used to analyze themes occurring in qualitative data collected and quantitative analysis of the ordinal data collected representing feelings at the end of sessions will be analyzed using inferential statistics. For quantitative data collected, matched paired t-test will be used to compare same group scores before and after sessions to track changes.

Administrative surveys: Surveys provided to school administration during an initial in-service for teaching the program are provided and compared to a survey; mixed method surveys including quantitative and qualitative questions will be provided to school administrative personnel responsible for the implementation of the program. Survey questions can be found as Appendix D. Following the intervention, a focus group with the educators discussing their perspectives on the program. This provides additional information from stakeholders outside the program who may have influence over program implementation from a financial or program development perspective. Focus group questions can be found as Appendix E. Descriptive statistics will be used to analyze themes occurring in qualitative data collected and quantitative analysis of the ordinal data collected representing feelings at the end of sessions will be analyzed using inferential statistics. For quantitative data collected, matched paired t-test will be used to compare same group scores before and after sessions to track changes.

Participants: From the schools surveyed, the demographics of the teachers include 70% that identify as women, 100% holding at least a bachelor's degree, 60% report teaching greater than 10 years, 30% teaching between 5-9 years, and 10% teaching less than 5 years. The racial demographics include 40% Caucasian, 30% African American, 20% Asian, and 10% Latinx.

The students surveyed in the program are between 5-8 years old, 70% are boys, 87% come from families that financially meet eligibility for the National School Lunch Program, all students live within an urban setting, and 90% have a documented history of

two or more adverse childhood experiences. Their racial demographics include 35% Caucasian, 30% African American/Black, 25% Latinx, 5% Asian, and 5% multiracial.

Outcomes Measures

For this program, several outcome measures were designed.

Appendix. A: Guiding Principles was created as a pre and post assessment of TIP and TUS principles. It was designed to be used prior to the initial in-service and after the first chapter of content education.

Appendix B: Guiding Theories- created to check for fidelity in understanding the basic principles of several OT (Occupational Therapist) theories; it is designed as a pre and posttest to check for understanding after the completion of the second chapter of content education.

Appendix C: PFE Questionnaire- created to gather data to support the principles focused evaluation in which the program is grounded. It is a series of data collection via open ended questions, templates for data collection via GAS, reflecting on each part of the process, collecting data on student progress, prompts/assistance, and independence.

Appendix D: Identifying Trauma Behaviors- created to share and assess information related to patterns of behavior that are common following childhood adversity and trauma responses to different areas of function.

Appendix E: Focus group questions

Procedures and Data Collection Timeline

Two groups will provide the necessary data as part of this evaluation. It will be completed with one group starting at the first group's conclusion. The first program will take six weeks to run and two weeks to aggregate and analyze the data. The second group will begin immediately following the second week of data collection. At Week 16, all data from both groups will be aggregated and analyzed.

- Week 1 and Week 9
    - Inservice training for staff
    - Pre/post test: Appendix A – Guiding Principles
    - Pre/post test: Appendix B- Guiding Theories
    - Pre/post test- Identify trauma behaviors- Appendix D.
    - Journal reflection- evaluation enrichment- weekly reflections
    - Student check-in/ check outs with each session
    - Administrative pre-survey following in-service.

- Week 2 and Week 10:
    - Educators Self-report consistent routines- Appendix C.
    - Reflection of helpful rapport strategies- Appendix C
    - Journal reflection- evaluation enrichment- weekly reflection
    - Student check-in/ check outs with each session
- Week 3 and Week 11:
    - Journal reflection- evaluation enrichment- weekly reflection

- Student check-in/ check outs with each session
- Educators document how many students have moved/ how many columns on GAS scale.
- Educators identify ways to support student independence/engagement-Appendix C.
- Educators identify ways to scaffold tasks- Appendix C.
- Educators identify ways relationship building impacts students- Appendix C.

- Week 4 and Week 12:
  - Journal reflection- evaluation enrichment- weekly reflection
  - Student check-in/ check outs with each session
- Week 5 and Week 13:
  - Journal reflection- evaluation enrichment- weekly reflection
  - Student check-in/ check outs with each session
- Week 6 and Week 14:
  - Journal reflection- evaluation enrichment- weekly reflection
  - Student check-in/ check outs with each session
  - Students demonstrate improved FM skills- GAS Scale, pre-posttest.
  - Students demonstrate increased time on-task- GAS Scale
  - Educator perspectives on using PRO-TIP- Appendix C.

- Week 7 and Week 15:
    - Focus Groups with educators and administration- Appendix E.
    - Administrative post-test
    - Compilation of data and analysis from weeks 1-6
- Week 8 and Week 16:
    - Compilation and analysis of data from weeks 1-6
    - Final evaluation completed.

Data Analysis

Descriptive statistics will be used to analyze open-ended prompts in Appendix C., participant journals related to themes, and student check-in/checkout to look for correlations, patterns, and data regarding service frequency and changes in behavior. Matching paired t-tests and inferential statistics will be used to measure change in pre/post surveys over the course of learning from before and after a chapter, to before and during the program, and before and after the program from the perspectives of the student, educators, or administrators.

Table 2
PRO-TIP Evaluation Matrix

Pediatric Remediation Outcomes- Trauma Informed Principles (PRO-TIP)							
TIP- trauma informed principles, TIC- trauma informed care, TUS- therapeutic use of self, PEOP- Person, Environment, Occupation, Performance (theory), IRM- Intentional Relationship Model (theory), GAS- goal attainment scale, FM- fine motor, PFE- Principles Focused Evaluation							
	Logic Model	Evaluation Questions	Indicators	Targets	Data Source	Data Collection	Data Analysis

	Component						
Program Strategies/ Implementation	Educators learn about TIC & TUS principles	What evidence on TIP and TUS was presented to support the need for both in school settings? Did the evidence provide enough connections to the effects of trauma on participation to correlate the need for using TIP and TUS?	Content and evidence found within literature provided in program manual. Method of teaching TIC, TUS principles.	Prior to program implementation with students, educators understand the value of/ how to implement TIC, TUS principles with fidelity.	Fidelity for understanding TIC and TUS principles included in rubric for the program- Appendix A. Using Guiding Principles.	Pre- and post-assessment of TIP and TUS principles; pre-survey delivered at initial in-service, post-assessment completed after learning and reviewing unit 1: TIC and TUS principles.	Matched pairs t-test comparing same group scores before and after learning
	Educators learn about PEOP, KAWA, and IRM theories	Was the use of OT theory presented in a way that non-OT educators found clear and meaningful? How were the concepts presented simply and effectively?	Content presented in case study format, and basic theory overview and summary.	Prior to implementation with students, educators understand basic OT theories and how to use them on a basic level.	Fidelity for understanding OT theories in the program- Appendix B. Using Guiding Theories	Pre and post test to check for understanding with a score of 80% +to understand when and how to use each theory.	Descriptive statistics t-test (inferential statistics)
	Educators prioritize student collaboration to	To what extent did educators participate in learning that facilitated their	Samples of routine building approaches are	By the first session with students, educators have 2+	Use of the Strategy Suggestions Checklist	Within 3 sessions, educators will self-report a	Descriptive statistics

	build a routine for future sessions.	ability to identify ways to collaborate effectively with students?	provided in the program manual.	ideas of how to engage students in building a routine.	1: Routine Ideas. PFE questionnaire for PRO-TIP: Appendix C	consistent predictable routine with each child or group of children.	
	Offering suggestions and strategies to build rapport and trust with students	To what extent did educators have opportunities to demonstrate effective rapport building skills? To what extent were educators able to have opportunities for feedback to ensure effective learning?	Educators had materials shared via case studies and videos during training to model trust and rapport. Builds on lessons of TUS and TIC in Appendix A.	Within 3 sessions, educators self-identify 3+ strategies they found most helpful in building rapport with different students.	PFE questionnaire created for PRO-TIP: Appendix C.	Appendix C. Guided open-ended prompts	Descriptive statistics
	Educators support student with direct skill practice in fine motor skills embedded into TIP-centered activities	To what extent are educators helping students with FM delays in terms of amount of assistance? To what extent does direct skill instruction support FM improvements?	Number of prompts and level of assistance provided.	By mid-program, most students require fewer educator provided prompts or assistance	Program manual documentation sheets	GAS	t-score (inferential)

Early & Intermediate Objectives	Educators increase knowledge of trauma on school participation.	To what extent are the impacts of trauma known to educators before and after didactic information sharing?	Educators learned about maladaptive school behaviors correlation to trauma in the program manual	By the first student session, educators will correctly identify 80%+ t/f style questions identifying trauma related behaviors in young children	Program manual documentation sheets	Pre and post chapter quiz.	Matched pairs t-test comparing same group scores before and after learning
	Educators recognize the power of relationship and connection to improve student achievement	To what extent do educators use relationships to improve student outcomes? To what extent does supportive relationship have on student participation individually or in small group settings?	Educators learned TIP, and TUS in App. A	After 3 sessions and at the mid-program point, educators will correctly self-identify 3+ ways relationship building has impacted student learning	PFE questionnaire created for PRO-TIP: Appendix C.	Appendix C. Guided open-ended prompts	Descriptive statistics
	Increase students' independence in fine motor-based activities	To what extent does scaffold assistance/direct instruction/modeling have on independent learning in children?	Availability of literature on the "just right challenge," prompt hierarchy, and scaffolding	By mid-program, educators self-identify 5+ instances of scaffolding tasks for student success.	PFE questionnaire created for PRO-TIP: Appendix C.	Appendix C. Guided open-ended prompts	Descriptive statistics

			in manual. Case studies to support learning.				
	Increase students' willingness accept help from educators more readily	To what extent does students accepting help influence their task success? To what extent does accepting help support student engagement and independence?	Availability of literature and opportunities to practice using TIP properly to build safety, trust, and collaboration.	By mid-program, more than half of the students will have moved 1+ columns toward independence in 1+ FM area By mid-program, educators will identify 2+ ways to support students' independence and engagement	Program manual documentation sheets	GASà students PFE questionnaire created for PRO-TIP: Appendix C. Guided open-ended prompts à evaluators	t-score (inferential)
Long Term Goals	Increase student ability and accuracy in school-based fine motor tasks	To what extent are children demonstrating greater accuracy in school-based FM activities compared to before the program? To what extent has the child(ren) increased their	Work samples and crafts provided in program manual related to FM skills	By program completion, students will demonstrate greater FM control in 1+ activity area	Program manual provided activity sheets	Pre-post test GAS	Matched pairs t-test comparing same group scores before and after learning

		accuracy and precision on FM tasks?					
	Increase persistence/ window of tolerance for learning in students with trauma histories	To what extent do children demonstrate increased task persistence? To what extent are children demonstrating a greater ability to work through challenging tasks?	Frequency of strong emotional reactions or task-avoidant behaviors. Number or quality of precision noted during FM craft activities.	By program completion, students will demonstrate increased time on-task. By program completion, students will self-advocate for assistance rather than demonstrating dissociative or strong emotional reactions.	Program manual documentation sheets	Pre-post test GAS	Matched pairs t-test comparing same group scores before and after learning
	Improve school culture and educator perspectives on using TIP to support students	To what extent do educators perceive TIP as necessary and helpful? To what extent has the program shifted educator ideas around TIC?	Availability of ongoing opportunities for documentation and reflection.	By program completion, educators will identify using a Likert scale their perspectives on the efficacy of using TIP to support FM improvements.	Program manual documentation sheets	PFE questionnaire created for PRO-TIP: Appendix C. Pre and post test	Matched pairs t-test comparing same group scores before and after learning

Table 2: PRO-TIP Evaluation Matrix

CHAPTER FIVE: Artifact Funding Plan & Dissemination Plan

Section 1: Brief Solution Description

Given the high prevalence of traumatic experiences in childhood across all demographics and the lifelong negative health implications, it is crucial to mitigate the effects of traumatic experiences as early as possible. School based occupational therapy practitioners (OTPs) are in a unique position to support students given the profession's holistic lens, person and occupation centered interventions and theories. The twofold proposed solutions include the development of the Pediatric Remediation Outcomes: Trauma Informed Principles (PRO-TIP) program and original research conducted with OTPs across the country using the Nominal Group Technique (NGT), which is a priority driven and consensus-based approach.

The PRO-TIP seeks to train educators on trauma-informed principles and therapeutic use of self (TUS) along with occupational therapy (OT) theories and frameworks. By providing educators with a fundamental understanding of the person-centered lens, they are more able to connect with students in a meaningful way and better support them in improving fine motor skills. The PRO-TIP is designed to be implemented by any school staff member working to support children. The NGT research is designed to create a basis of evidence to inform the PRO-TIP program by filling some of the paucity of evidence specific to the needs and experience of OTPs in school-based practice regarding key

components of service delivery, and systemic and personal barriers and facilitators to effective TIC.

Section 2: Program Resources Available Without Monetary Cost

Available resources for the PRO-TIP Program and/or NGT Research include:

- **Technology:** laptop and charger, access to google products (jamboard, sheets, forms, email, docs) and access to a video conferencing program (zoom; ideally with subscription), access to a design tool website (canva; ideally with a subscription), access to scholarly websites (Pubmed, ERIC, etc.), access to AOTA publications (AOTA membership), Qualtrics subscription
- **Labor**: lead investigator, a few assistants, lead author, a few assistants
- **Miscellaneous:** copyright and legal fees, website domain

Section 3: Program Materials with Proposed Monetary Cost & Budget

Note: Many costs can be mitigated with university/employer affiliated subscriptions. This can cover labor hours (Graduate Assistant pay, faculty salary pays), Employers or universities involved in research have subscription services for data analysis such as Qualtrics, Canva, and/or Zoom.

Table 3

Program Materials with Proposed Monetary Cost

PRO-TIP Program* & NGT Research+	
Lenovo Laptop and charger*+	$500
Google Products*+	$0
Zoom subscription (1 year) +	$140.90
Canva subscription (1 year) *	$119.99
AOTA Membership (1 year) *	$155
Qualtrics Subscription (1 year) +	$1,500
Lead investigator pay (up to 80 hours at $50/hour) +	$4,000
Assistant investigator (up to 80 hours at $20/hour) +	$1,600
Lead author pay (80-120 hours at $50/hour) *	$4,000-6,000
Copyright and legal fees*	$300
Website domain (1 year) *	$12
PRO-TIP Program Projected Cost Range (independent): $5,086.99-7,086.99 **PRO-TIP Program Projected Cost Range (affiliated):** $4,967-6,967	
NGT Research Projected Cost (independent): $7,740.90 **NGT Research Projected Cost (affiliated):** $5,600	

Table 3: Program Materials with Proposed Monetary Cost

Section 4: Potential Funding Sources

Gary Kielhoffner Doctoral Research Scholarship: $5,000

- Eligibility:
    - Be an occupational therapist enrolled in a research doctoral program (PhD, ScD, DrPH, and other doctoral research degrees will be considered)
    - Have completed all department and institutional coursework requirements except for writing and defense of the dissertation.
    - Have successfully defended your dissertation proposal at this time.
    - If awarded, should agree to utilize scholarship funds during your time as a doctoral candidate without carryover thereafter.
    - Have a mentor who has expertise in the area of their proposed research study/work.
    - Conduct research at a U.S academic institution.
    - Be a U.S citizen or have appropriate residence/visa documents
- Download the application form on https://www.aotf.org/Grants/Kielhofner-Doctoral-Research-Scholarship and for questions email research@aotf.org
- The application opens 8/1/2023 and closes 9/15/2023

AOTF Implementation Research (IR) Grant: Flexible amount

- Eligibility
    - The PI has a terminal research degree (PhD, SCD) or has an OTD or EdD with advanced research training (e.g. completion of a post research fellowship).
    - The PI is a credentialed occupational therapist with a full-time faculty position appointment or an equivalent research position at the time of application OR a non-OT investigator with a primary academic appointment in an occupational therapy department.

    - The PI is employed by a U.S. domestic, public or private, non-profit organization/institution that is eligible to receive Foundation research grants and will provide assurance of its accountability and support for the project.
    - The PI is a U.S. citizen or permanent resident of the United States OR applied for permanent residence. (For non-citizens, the applicant organization must have policies in place to determine whether residence status or visa status will allow completion of the research.)

- Application:
    - Complete request for application in August of 2023
    - Submit Letter of Intent
    - Application Information for Mentor

OccupationalTherapy.com Scholarship: $5,000

- AOTF Scholarship
- Contact: scholarships@aotf.org or 240-292-1125
- Eligibility
    - Be currently enrolled as a full-time student at an AOTA accredited or developing professional level (master's or OTD) or occupational therapy assistant (OTA) program.
    - Have completed at least one year of occupational therapy specific course work. If you are studying to become an occupational therapy assistant, you must be in your final year to be eligible.
- Application Information
        - Contact information
        - Academic background
        - Resume
        - Essay question with 500 words max.

- Two completed reference forms must be submitted by October 27, 2023
- Completed Program Director's Statement must be submitted by October 27, 2023
- Signature

Table 4

Dissemination Plan

Project	Type	Travel Cost	Printing Cost	Time	Fees	Software
NGT Research	Publication in Open Access Journal on findings	n/a	n/a	20 hrs @ 50/hr PI and 20/hr Co-I ($1,400)	~$3,000 Article Processing Charge (APC)	n/a
NGT Research	PDF sharing with participants and circulating on social media	n/a/	n/a	15 min to email digital copy; 30 min to post the link to access on multiple social media platforms	n/a	Email
PRO-TIP	In-person conference:	$100 in gas	$63	One day	n/a	Internet access

	Poster presentation "Innovative Schools Summit: NYC"	$32 in tolls				
PRO-TIP	In-person conference: speaker "Creating Intentional Connections" Feb. 2024 – Georgia	~$200 for airfare + taxes +fees +luggage +$150 for lodging	n/a	Two days	Free to apply, $275 reduced conference rate as a speaker	Internet access; Microsoft or Google programs

Table 4: Dissemination Plan

To disseminate the research findings from the NGT research study and to allow equitable access, it is the decision of the primary and co-investigator to submit publications to Open Access journals. The APC is approximately $3,000, and is a one-time cost, which may be covered by Temple University and their budget for funding APCs to researchers and students through companies such as SPARC. The participants involved in the study will be provided with a copy of the publication and will be encouraged to disseminate the findings with interested colleagues. Additionally, circulation of the website once open access publication is available will be done through professional pages and social media accounts. As the PRO-TIP program is theoretically sound and ready to move to writing a first edition and piloting the program, dissemination will two networking opportunities in which to share the proposed solution to supporting students with fine motor skills using TIC and OT principles and theories. Both involve travel and one associated cost for printing a 36" x 48" poster, which is approximately $820 for both conferences in New York and Georgia.

CHAPTER SIX: Conclusion

Trauma-informed care (TIC) is a framework in which practitioners recognize and respond to the impact trauma has on an individual's life. This understanding informs an approach which prevents re-traumatization and facilitates an increased responsiveness to the effects trauma may have caused socially, emotionally, physically, or mentally. Despite evidence suggesting favorable opinions toward the use of trauma-informed care and the occupational therapy profession being built on client-centered practice and a holistic approach to care, there is a paucity of evidence in how occupational therapy practitioners (OTPs) define TIC, and very little evidence-based literature on what constitutes effective TIC in a school-based setting.

To address this gap, consensus-building focus groups were run with groups of 4-6 OTPs from across the United States using the Nominal Group Technique (NGT). By utilizing NGT, priorities for a TIC approach arise in a structured way that affords all participants to have balanced input in generating and ranking ideas. It is particularly helpful in situations in which different perspectives are considered and held with equal importance. This approach helps identify and prioritize aspects and direction of research that need further development. Despite being a widely accepted and applicable approach to gathering perspectives and priorities, this study is the first of its kind to use NGT among OTPs for TIC. The flexibility yet structured approach makes it adaptable, allowing for informed group decisions that consider wider perspectives. In this case,

geographical differences, community setting differences, socio-cultural differences, and experiences advanced or specialized and training of participants.

The participants predominantly self-identified as having intermediate or advanced/expert level of knowledge and application using TIC and having over ten years of clinical experience. The priority ranking and consensus building method was used to explore and prioritize top key components of service delivery using a trauma-informed approach as well as the limitations and facilitators to doing so in a school setting. By having leaders in this area reach consensus on their priorities, this creates a basis of research on which further studies can be done to expand ways to bridge the gap between needs and implementation in practice. It provides a basis of evidence in which to explore what it truly means to provide TIC.

The significance of this evidence is it is the largest and most comprehensive study of its kind to date to address this gap. It includes perspectives of recent graduates and leading experts alike, to explore and determine a consensus of priorities for personal and systemic strengths and barriers and key components of what constitutes effective TIC within the school setting. Whether working with children who face chronic conditions of adversity or at the profession's origins caring for shell shocked soldiers returning home from WWI, the core principles of TIC are at the heart of occupational therapy practice. Despite this, there is a startling lack of evidence produced by and for occupational therapists on this topic. Trauma-informed literature is prominent in the fields of social work, psychology, and government organizations such as SAMHSA and the CDC.

Innovation in TIC requires novel exploration and development of approaches to meet the needs of the profession and the clients served. OTPs using the NGT approach allows exploration and discussion of a multifaceted and complex concept. Following the consensus reached within individual groups, the comparing of priorities between groups occurs to reveal similarities and differences occurred. Finally, holding semi-structured interviews with recognized OTP leaders to substantiate the group findings allowed for a consistent image of the needs, supports, and defining trauma informed care for school-based practitioners to emerge. This study was the first of its kind to explore OTP views using NGT. It is the largest study to date with OTPs experienced in TIC for school-based practice.

A well substantiated link exists in research between early childhood adversity and physical, mental, and social difficulties across the lifespan. Given the prevalence of childhood adversity, the amount of time which children spend in school, the correlation between traumatic responses and delays in regulation, social, and fine and gross motor skills, school-based OTPs are in the unique position to disrupt the cumulative effect that can occur from experiences of acute or chronic exposure to childhood adversity. By acting as advocates and leaders in this capacity, OTPs more effectively and comprehensively treat the whole child. Using TIC, OTPs promote student wellbeing and participation with greater consideration and understanding of each child's unique needs.

Key ideas generated for key components highlight the essential nature of creating a foundation of safety through regulation and relationship. A key component and a

primary facilitator of implementing TIC is having a fundamental understanding of TIC and how trauma may present and can affect neurodevelopment and occupational participation in children of multiple ages groups. The other key facilitators included the unique capacities and strengths of the occupational therapy profession, collaboration with the educational team, leveraging school system specific strengths, and a shift towards more emerging research and laws supporting those who experience childhood adversity and the beneficial use of TIC. However, there remains current barriers in place to implementing TIC in schools with fidelity as OTPs. Primarily, this includes limited resources, such as inadequate time built into the day for collaboration with staff members or flexibility to support a TIC approach, and limitations in adequate staffing or training opportunities. School system barriers identified included lack of access or reduced access to regulation opportunities like music class and recess, high caseloads, and writing goals that align with student needs and meet IEP regulations.

Understanding key considerations of TIC service delivery and having the knowledge of what the priorities are in the strengths and barriers forms the basis of evidence to consider and use in practice and research moving forward. Creating a more consistent basis of evidence in this area involves the commitment of those currently using a TIC approach. Further, it involves expanding that understanding and practice to others through ongoing learning and collaboration. Using and advancing the available research improves the quality and efficacy of the care provided to students, which fosters resilience, growth, and reduces maladaptive responses to traumatic experiences. In

addition, it moves the availability and use of evidence-based practice forward for the profession.

The proposal of the PRO-TIP (Pediatric Remediation Outcomes-Trauma-Informed Principles) program is designed in response to the basis of evidence created through NGT focus groups of OTPs across the country who shared their experiences of key components, strengths, and barriers to trauma-informed care in school-based practice. As a program designed by an OTP for educators not limited to OTPs, this supports more adults within the students' educational environment to support implementation. The goals are to promote student engagement through the "just right challenge" for fine motor activities, the use of trauma-informed principles, and support a positive educator-student relationship.

Creating a protocol that supports the students and the educators guided by OT theory and best-practice in trauma-informed care benefits the practitioner, the client, and the wider cultural organization. As organizations grow in their understanding and application of trauma-informed principles, a shift in prioritizing relationship, regulation, safety, trust, and collaboration occurs. This shift transcends an individual relationship to support all students, regardless of the presence of a trauma history. In addition to expanding the population of educators providing trauma-informed care, by targeting fine motor skills, students can be supported by adults other than OTPs exclusively. This improves efficiency and use of time for OTPs, responding to the identified barrier of time

constraints when providing effective TIC in school. Shortages in staffing, funding, and time constraints were major barriers to providing effective TIC in schools.

The traditional structure of OT service delivery targets only students with an IEP or 504 plan. Through expansion of educator capacity, PRO-TIP offers the opportunity for students who could benefit from additional support but do not meet criteria for an IEP or 504 plan under the Individuals with Disabilities Education Act (IDEA) to receive benefit from the programming. It provides training and knowledge needed for practitioners, encourages collaboration, and a more widespread approach to using a trauma-informed lens.

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APPENDIX A

RESEARCH SUBJECT CONSENT FORM

You are being asked for your consent to take part in a research study. This document provides a concise summary of this research. It describes the key information that we believe most people need to decide whether to take part in this research. Later sections of this document will provide all relevant details.

Title of the research study: Exploring Occupational Therapy Practitioners (OTP) Perspectives on Trauma-Informed Care in Service Delivery

Principle Investigator:
Amy Lynch, Ph.D., OTR/L, TBRI (R) Educator, SCFES, FAOTA
Associate Professor, Department of Rehabilitation Sciences
College of Public Health
Temple University

Co-investigators:
Sarah Blaise, MS, OTR/L

Why am I being invited to take part in this research? We invite you to take part in this study because you are 18 years and self-identify as an occupational therapy practitioner, educator, or researcher; and you have access to a device which will support your use of a video conferencing tool and a means of entering text while on the call.

What you should know about a research study:
• Whether or not you take part is up to you.
• You can choose not to take part.
• You can agree to take part and later change your mind.
• Your decision will not be held against you.
• You can ask all the questions you want before you decide.

Who should I talk to about this research? If you have questions, concerns, or complaints, or think the research has hurt you, contact the research team at:

Amy Lynch, Ph.D., OTR/L, TBRI (R) Educator, SCFES, FAOTA
Associate Professor, Department of Rehabilitation Science
College of Health Professions and Social Work
Temple University

This research has been reviewed and approved by an Institutional Review Board. You may talk to them at (215) 707-3390 or e-mail them at: irb@temple.edu for

any of the following:

• Your questions, concerns, or complaints are not being answered by the research team.
• You cannot reach the research team.
• You want to talk to someone besides the research team.
• You have questions about your rights as a research subject.
• You want to get information or provide input about this research.

Why is this research being done? The purpose of this study is to explore occupational therapy practitioner perceptions of components necessary for the delivering trauma informed occupational therapy services.

How long will I be in this research? Completion of a brief survey online, is anticipated to take you 10-15 minutes. Participation in a focus group or semi-structured interview, with a video conferencing tool, is anticipated to take you up to 2 hours. Following the initial consent and survey submission, respondents will be contacted within one work week to schedule
semi-structured interviews/focus groups at times convenient for participant. Researchers may reach out up to 4 months after their participation in focus groups or interviews for follow up questions.

What happens if I agree to be in this research? You will be asked to complete a survey via an online link. Then, you will be invited to participate in either a focus group or a semi-structured interview via a video conferencing tool. The interviews and focus groups will be recorded.

Am I eligible to participate? Participants must self-identify as occupational therapy practitioners, educators, or researchers. Participants must be 18+, speak English, and be able to consent. Participants need to have access to a device which will allow them to participate in a video conferencing tool including a way to enter text while on the video conferencing platform.

Is there any way being in this research could be bad for me?
Although there are no anticipated risks for the participants, it will require at least 10-15 minutes to complete the on-line surveys and 90 to 120 minutes to participate in the focus group.
Also, whenever one shares personal information with someone else, there is always a risk that someone who wasn't supposed to see the information could see it. The research team takes appropriate steps to lessen this risk and protect the confidentiality of people in our studies, including keeping information in password-protected or locked files, and not using their name and other information that could identify them whenever possible

What happens to the information collected for this research? The focus groups will be recorded with the permission of the participant. The focus group data collected from participants will only be kept electronically in password-protected files on an encrypted network.

To the extent allowed by law, we limit the viewing of your personal information to people who have to review it. We cannot promise complete secrecy. The IRB, Temple University, Temple University Health System, Inc. and its affiliates, and other representatives of these organizations may inspect and copy your information. Data and contact information gathered during the initial consent process will be stored in order to schedule focus groups or semi-structured interviews and to contact you for up to 4 months will be kept electronically in password-protected files on an encrypted network. All data will be assigned a number to keep track of the data. All published reports will contain data reported either in aggregate form (where no individual responses can be identified) so that identification is impossible.

This research has been reviewed and approved by the Temple University Institutional Review Board. Participants can contact them at (215) 707-3390 or e-mail them at: irb@temple.edu with any questions, concerns, or complaints about the research; questions about your rights; to obtain information; or to offer input.

Will I be paid for taking part in this research? There is no financial compensation associated with participation in the study. There are direct benefits to participating in the study. Participants have the benefit of contributing to the field of occupational therapy and society through the knowledge gained in the research process in an area that is meaningful and important to them. Focus group participants also may benefit from the networking that is possible within virtual group gatherings.

What else do I need to know about this research? If you feel harmed or distressed as a result of taking part in this research, immediately notify the research team and they will arrange for you to get medical care. There is no commitment by Temple University, Temple University Health System, or its subsidiaries to provide monetary compensation or free medical care to you in the event of a research-related injury. You may also contact your own doctor, therapist, and an emergency department for care or assistance. By signing this consent form, you are not waiving any of the legal rights that you otherwise would have as a participant in a research study. If you have questions about the study or a research-related injury, please contact Temple University IRB: (215) 707-3390 or e-mail them at: irb@temple.edu

If you are an employee, you are responsible for checking with your employer to find out

if you are authorized to participate in the research study during or outside of work hours.

- I consent to participate in this study
- I do not consent, I do not wish to participate

APPENDIX B

DEMOGRAPHIC AND COMPETENCY SURVEY

Please answer the following questions.

1. **How do you self-identify as an OTP? I am:**

1. An Occupational therapist (OT)
2. A Certified Occupational Therapy Assistant (COTA)
3. An OT researcher
4. An OT/COTA Educator/Faculty

2. **With respect to your knowledge and skill set, how do you identify? I am:**

1. (Beginner) Emerging trauma informed care (TIC) practitioner, know a bit about trauma & what OTs can do, but you are not quite sure how to use in practice
2. (Intermediate) You've gone to a few conferences, you talk about trauma informed care (TIC) often, and you are trying to implement occupational therapy intervention using trauma concepts.
3. (Advanced/Expert) You have specific trauma model trainings and teach other practitioners about trauma; you actively use identifiable trauma informed care (TIC) principles in your practice

3. **What is your age? I am:**

1. 18-25
2. 26-34
3. 35-44
4. 45-54
5. 55-64
6. 65 or older

4. **Which of the following best describes your race/ethnicity? I am:** ***(Check all that apply)***

1. Native American/ Alaskan Native
2. Asian- Eastern
3. Asian-Indian
4. Native Hawaiian or Other Pacific Islander
5 . Black/African American
4. Hispanic/Latino/a/x or Spanish Origin
5. White/Caucasian
6. Mixed-race
7. Other (with a blank entry field for the participant to self-identify)
8. I prefer not to say

5. **What is the highest degree or level of school that you have completed? I have a:**

1. High school degree (Received diploma or the equivalent such as GED)
2. Completed some college credit, but no degree
3. Associate degree
4. Bachelor's degree
5. Master's degree
6. Post professional clinical doctorate
7. Entry level clinical doctoral degree (ie: OTD)
8. PhD or EdD or ScD (ie: nonclinical OTD)

6. **How many total years have you worked in your primary practice setting? (If you work in more than one setting, then your primary practice setting would be the one in which you complete the most % of your work hours)**

1. <1 year
2.1-2 years
3. 3-5 years
4. 6-10 years
5. 11-19 years
6. 20+years

7. **Setting**

1. Early childhood education
2. School based
3. Pediatric hospital or long-term care
4. Pediatric mental health
5. Adult hospital acute care
6. Adult hospital rehabilitation
7. Adult long-term care
8. Adult mental health

8. **Community Setting**

1. Urban
2. Suburban
3. Rural

9. Do you have specialized training in any of the following models?

1. Attachment, Regulation, and Competency (ARC)
2. Circle of Security (COS)
3. Neurosequential Model of Therapeutics (NMT)

4. Polyvagal Theory
5. Safe PLACE
6. Somatic Experiencing (SE)
7. Theraplay
8. Trauma informed yoga
9. Trust Based Relational Intervention (TBRI)
10. Other (with a blank entry field)

10. Would you be willing to participate in a (select all that apply)

1. A virtual focus group
2. A virtual semi-structured interview

11. Self-Rated Competency: We are using an NIH competencies proficiency scale to gather information about occupational therapy practitioner competency experiences. Please Rate yourself using the following scale:
https://hr.nih.gov/working-nih/competencies/competencies-proficiency-scale

- NA - Not Applicable
- 1 - Fundamental Awareness (basic knowledge) - You have common knowledge or an understanding of basic techniques and concepts. You need to have a focus on learning this.
- 2 - Novice (limited experience) You have the level of experience gained in a classroom and/or experimental scenarios or as a trainee on-the-job. You are expected to need help when performing this skill.
- 3 - Intermediate (practical application) - You are able to successfully complete tasks in this competency as requested. Help from an expert may be required from time to time, but you can usually perform the skill independently.
- 4 - Advanced (applied theory) - You can perform the actions associated with this skill without assistance. You are certainly recognized within your immediate organization as "a person to ask" when difficult questions arise regarding this skill.
- 5 - Expert (recognized authority)- You are known as an expert in this area. You can provide guidance, troubleshoot and answer questions related to this area of expertise and the field where the skill is used.

	N/A or no knowledge	Fundamental Awareness	Novice	Intermediate	Advanced	Expert
Engaging with traumatized children/families so that they feel						

comfortable talking to you/ comforted by you						
Responding calmly and without judgment to a child's or family's strong emotional distress						
Identify behaviors which appear to reflect a child has experienced trauma, but the details of that trauma have not been clearly elicited**						
Educating children and families about common traumatic stress reactions and symptoms						
Avoiding or altering situations within the hospital that a child or family might experience as traumatic						
Assessing a child's or family's distress, emotional needs, and support systems soon after a traumatic event						
Providing basic trauma-focused interventions (assessing symptoms, normalizing,						

providing anticipatory guidance, coping assistance)						
Understanding how traumatic stress may present itself differently in younger children, older children, and teens						
Understanding the scientific or empirical basis behind assessment and intervention for traumatic stress						

Not an original question From the Kassam-Adams et al (2015) study **The question replaced wasn't trauma informed.

12. Do you complete an actual ACE checklist with your clients? Y/N. If so, please explain why and how.

1. Yes, always
2. No, never
3. Sometimes

If yes or sometimes, please share how, when, and rational here:

APPENDIX C

FOCUS GROUP PROTOCOL GUIDELINES

Procedures:

We will use a nominal group technique (NGT) protocol to foster active engagement by group members to elicit targeted information about priorities, barriers and supports to implementation, perceived competence, and defining trauma-informed care in occupational therapy (OT) practice. The NGT focus group consists of the following seven steps: 1) stakeholder participant generation and brainstorming of priorities for OT research; 2) reading aloud, recording and displaying of ideas; 3) discussion by group about ideas; 4) categorization of ideas into themes; 5) initial voting to identify high priority ideas; 6) discussion of initial vote by group; and 7) final vote of ideas. The final vote of ideas from each focus group largely completes the analysis for that particular group. As such, we will focus on integrating the results across groups through a process of prioritization of ideas. Immediately following the focus groups, the moderators make a results list from notes and the final vote of ideas. The results from each list are aggregated and the information prioritized to identify the ideas and themes that were rated the most and the least. This information is compared across groups.

Focus Group Implementation – Completed through Zoom

1. **Send and obtain informed consent prior to the focus group to ensure participants can complete survey prior to focus group Moderator thanks the group members for taking the time out of their very busy schedule to participate in the focus group. Ask them if it is OK to record the session only for the purpose of confirming that the information is correct when comparing across groups. Following analysis of the deidentified transcription, the hard copy of the recording will be discarded.**
2. **The moderators and focus group participants will provide a very brief introduction** including
    a. Name & pronouns
    b. A few short sentences about their work
3. **Provide an overview of the project and plan for today's focus group session is provided to participants.** This includes identifying each step in the prioritization process and the steps that they will engage in during the focus group.
4. **Independent generation and brainstorming of priorities**
    a. Facilitator will introduce the focus group participants to the setting: participants will develop and share ideas using Jamboard.
    b. Facilitator will demonstrate how to use the Jamboard program (https://jamboard.google.com/) so participants can add their ideas. Faciliatory confirm that these are anonymous.

c. Facilitator will send participants the link for the Jamboard page (Facilitator will set up prior to the focus group meeting by the researchers.

d. Facilitator will read Question 1 and brainstorm plan, then post Question 1 in the chat:

Question 1: ***What do you think are the key components of delivering trauma informed occupational therapy services? Another way to look at this is: what does it means to be a trauma-informed OTP?***

Please take the next ten minutes to brainstorm at least 3-5 components or qualities of trauma informed service delivery. Please add your ideas to the Jamboard program. Put each idea as a separate stickie/post it – these are anonymous. We will talk about the ideas after everyone has a chance to add their ideas.

5. **Reading aloud, recording, and displaying of ideas through the Jamboard**
    a. After 10 minutes, the facilitator will thank the participants for their ideas and explain the next step in the NGT process is discussing and sharing what is on the Jamboard.
    b. Everyone will have an opportunity to share during this process. If the participants feel more comfortable, they can add information anonymously through the Jamboard as well. Would each person be willing to share some thoughts on what is up on the Jamboard?
6. **Discussion about ideas**
    a. How do you feel about the components or ideas about trauma informed care in OT service delivery presented thus far? (If there are people that are not getting a chance to share or if people are not volunteering information – you can ask them or recommend that people use their hand raise function).
    b. What components or ideas listed so far do you agree with? Are there any that you do not think are important or needed, or that you would not put on a final list. Why?
7. **Categorization of ideas into themes**
    a. As a group we will look at the list and see which concepts we can group within themes.
    b. Do you see any concepts that overlap? What broad categories can we make? Do you see how any of these group together? What are some themes that are coming up? As you talk to me, please know I will move stickies/post its around to organize them into themes or categories.
    c. Facilitator will start organizing these into themes or topic areas based on responses using the Jamboard app.
8. **Initial voting to identify high priority ideas**

a. Now we will take a vote to identify the top components/ideas/concepts from this list. You may vote for your top three components/ideas/concepts. We'll try to identify five main components/ideas/concepts from this list.
b. This vote will be done on Google forms that are set up quickly by the person helping the facilitator and they will use this to put in their top three priorities.
c. Start a new Jamboard or add to the old one the top components/ideas/concepts in the order that they voted.

9. **Discussion of the initial vote**
    a. How do you feel about this initial list?
    b. What do you think belongs higher on the list?
    c. What do you think belongs lower on the list?
    d. Is there anything missing from this list?
    e. What else would you like to share at this time before the final vote?
10. **Final vote of ideas.**
    a. Now we will take a final vote on our list. (Need to have them list the priorities in order for the ones they choose.) They will do this in Google forms again.

Steps 5b-11 will be repeated with the following questions:
What are the personal and systems strengths & supports which facilitate effective delivery of trauma informed occupational therapy services?
What are the personal and systemic barriers & limitations which inhibit the effective delivery of trauma informed occupational therapy services?

11. **Thank you for participating in the focus group; your time and insights are valuable contributions to the growing body of research on an important area for professional research. We will use this information gathered as part of a study across contexts which we intend to move to full publication upon analysis completion.**

APPENDIX D

EXPERT SEMI-STRUCTURED INTERVIEW PROTOCOL GUIDELINE

I. **Before the Interview**

A. The research team will disseminate fliers inviting individuals to participate in a research study related to understanding trauma informed care in occupational therapy service delivery. This recruitment content will include a link and an email for interested individuals to respond. Those who contact the research team in response to the social media recruitment posting will receive a consent form. Upon completing the consent, participants will receive a link to the demographics and competency survey.

B. Once eligibility has been determined as an expert, a research team member will email prospective participants who fall under "self-identified experts" and schedule the zoom interview.

C. The coordinator will confirm the interview time.

D. With permission, research team will retain contact information including name, email address, and telephone number for possible participation in a subsequent study or for follow up clarification to discussion topics.

II. **The Interview:**

A. **Introduction**

Hi, my name is: (research team member state YOUR NAME). Thank you for agreeing to take part in this interview.

B. **Informed consent:**

[before starting the telephone interview]: I emailed you the consent form for this study. Do you have it? [if not, email it to them and verify receipt]

C. **Permission to audio record**

I would like to record our conversation. Once the interview is over, we will create a summary of what we discuss today. After we have completed the interview, we will review a transcription of the call and review the audio with the transcription and de-identify anywhere that your name or identification information is spoken. Then, once we have confirmed accuracy of transcription against the recording, we will destroy the audio recording and keep the de-identified transcription. Data from this and other interviews, as well as focus groups, will be analyzed, interpreted, and disseminated in publications and presentations. We won't include your name or any other information that could identify you in any presentations or publications related to this content that tells who you are.

Do I have your permission to record this interview? [If so, start recording]

D. **Start the interview**

Thank you for your time.

Demographics:

We are going to start by confirming some demographics:

- What is your professional background?
- How many years have you been practicing? How many years total, and how many years working with your current population?
- What setting do you currently work in? (Outpatient, inpatient, school based, mental health)
- What diagnoses do you primarily serve?

Trauma Informed Knowledge and Skills:

- How did you first become aware of trauma informed care concepts?
- How do you see trauma informed care concepts showing up in your clinical practice?
- Tell me about the individuals you serve who have experienced trauma. Who are they? How do you first notice it?
- Would you share with me your thoughts about trauma informed service delivery within the organization you work in?

Question 1: Key concepts, principles, components in trauma informed care delivery:

Thank participant for information so far.

- Given your experiences, could you please share with me what you believe are key concepts, principles, and/or components that must be a part of service delivery to say that you are delivering in a trauma informed manner?

Question 2: Personal and systems that support delivery of trauma informed care delivery:

Thanks participant with positive affirmation and let them know we are ready to move to the next question.

- What are the personal and systems strengths or supports which facilitate the your ability to deliver effective trauma informed occupational therapy services?

  Follow up probe: What strengths and supports do you think most occupational therapy practitioners have with respect to delivery of trauma informed care?

Question 3: Personal and systems barriers or limitations that support delivery of trauma informed care delivery:

- What are the personal and systemic barriers and limitations which inhibit your ability to deliver effective trauma informed occupational therapy services?

  Follow up probe: What barriers and limitations do you think most occupational therapy practitioners face with respect to delivery of trauma informed care?

Question 4: Measurement tools

Thank participant and offer affirming statements about the information they are sharing.

The next set of questions are about evaluating both impact of trauma on individuals you serve, as well as evaluating the impact of your trauma informed intervention:

- Evaluation of trauma experiences:
    - How do you know if an individual (or community or organization if it applies) has experienced trauma?
    - Do you specifically assess to determine if trauma has occurred for the individual or community/organization you serve?
        - *Follow up probe:* If so, do you use any specific tools to measure trauma experienced? If so, what tool? And, what do you like about the tool? What would you change about the tool? What ages and diagnoses do you use this tool with?
        - *Follow up probe:* Do you consider evaluation of anything else related to the life experiences of the individual or community/organization?

    - If they do not PCEs in the above discussion, but do not mention tools, then ask this question: Do you use any specific tools to measure PCEs?

    - If they do not mention PCEs in the above discussion, then ask this question: What are your thoughts about positive childhood experiences (PCEs)?
        - *Follow up probe:* Do you use any specific tools to measure PCEs?

- **Evaluating the impact of trauma informed intervention:**
    - How do you measure the effectiveness of your trauma informed care intervention delivery is effective?
        - *Follow up probe:* If so, do you use any specific tools to measure impact of your trauma informed intervention? If so, what tool? And, what do you like about the tool? What would you change about the tool? What ages and diagnoses do you use this tool with?

Question 5: If you could dream a big dream:

Thank participant and offer affirming statements about the information they are sharing.

- In your dream world, tell me how occupational therapists could best be empowered to delivery trauma informed services?

*Follow up probe***:** What do you think our profession needs to do to promote our role in the trauma informed care delivery space?

This is so great – I really appreciate all you are sharing.

Question 6: Anything further?

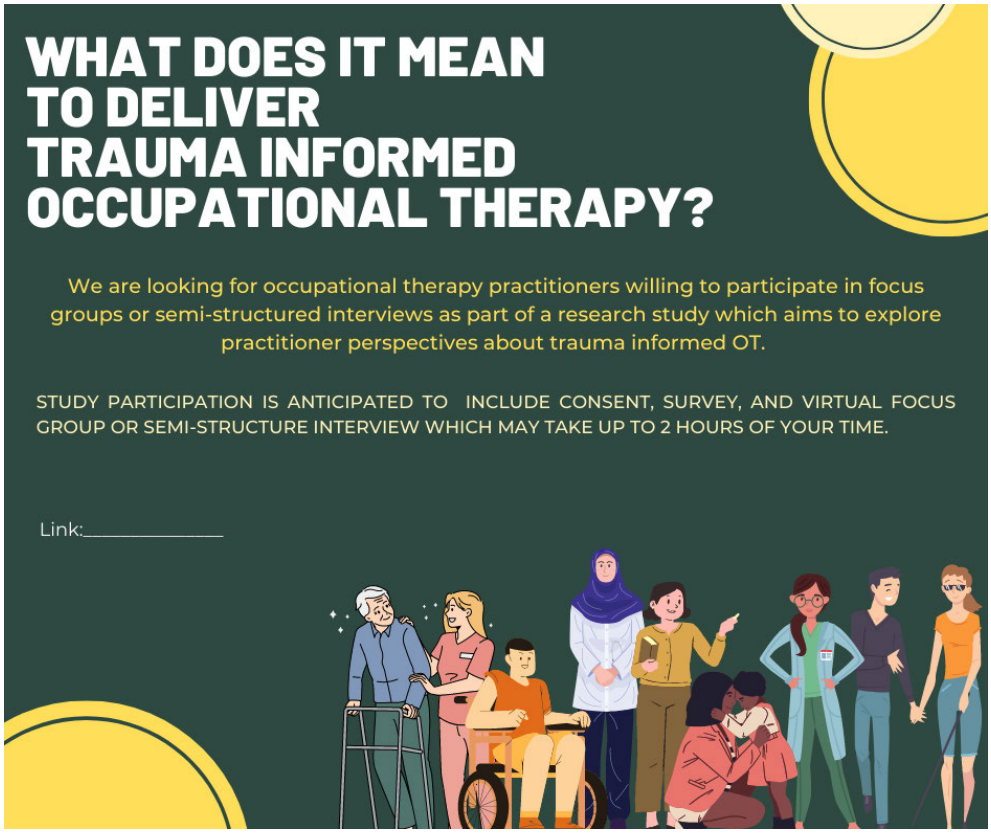
- Is there anything with respect to your trauma informed expertise or experiences that we have not covered today and that you would like to share?

Thank you so much for your time and sharing all of your expertise and experiences today. If you have any follow up thoughts after we complete this call, you are welcome to email our team at: amy.lynch@temple.edu . Please include your name and this study in the subject line.

APPENDIX E

RECRUITMENT FLIER CONTENT

WHAT DOES IT MEAN TO DELIVER TRAUMA INFORMED OCCUPATIONAL THERAPY? We are looking for occupational therapy practitioners willing to participate in focus groups or semi-structured interviews as part of a research study which aims to explore practitioner perspectives about trauma informed OT.
Study participation is anticipated to include consent, survey, and virtual focus group or semi-structure interview which may take up to 2 hours of your time.
Flier will need a link (see step 2)



(This image is designed to fit standard "Facebook post" dimensions.)
You can express participation by following this link:
The Qualtrics questions will be:

1. Would you like to be contacted to participate in this research?

1. Yes

2. No
    2. What is your preferred first name?
    3. What is your last name?
    4. What is your email?
    5. What is your preferred cell phone number?

Upon receipt of electronic inquiry from prospective participant, research personnel will:

- **Send a LINK which includes** CONSENT TO PARTICIPATE IN RESEARCH STUDY FORM with content supporting consent in survey, semi-structured & focus group
- **Upon completion of consent, participants will receive a** LINK to complete the demographic and trauma informed competency questions.
- Upon completion of the survey, participants will be contacted to schedule a focus group.

Participants will participate in a focus group.

APPENDIX F: EXECUTIVE SUMMARY

Introduction to the Problem and Background

The lifelong negative effects of experiencing childhood adversity are well documented; it can impact physical and psychological wellness, as well as familial and societal participation (CDC, 2016). Occupational therapists (OTs) use everyday life activities, or occupations, to support wellbeing both physically and psychologically. OT intervention maximizes clients' independence and participation in occupations that matter most to them across many settings. Through health promotion and prevention, OTs help people live better with injury, illness, or disability (AOTA, 2023).

Across every demographic-regardless of gender, race, socioeconomic status, cultural background, or community setting- prior to the age of 18, between 69-83% of individuals will have experienced at least one adverse childhood experience (ACE) (Merritt et al., 2015). ACEs include abuse, neglect, or household dysfunction as well as community level ACEs, such as bullying, living in foster care, living in an unsafe community, and experiencing discrimination (Cronholm et al., 2015). ACEs can lead to disrupted or delayed neurological development, self-regulation, fine and gross motor skills, academic performance, sensory processing, executive functioning, and appropriate socialization skills (Whiting, 2018; AOTA, 2015; Huot, 2022; Wade et al., 2018; Frederick, 2022; Whitney, 2020). The higher the number of ACE experiences, the greater

the impact in each of these areas which amplify the constraints on participation in meaningful occupational engagement.

School-based occupational therapists (SB-OTs) support children's wellbeing and development by empowering them to develop their skills academically, socially, and in meaningful and necessary activities within the school setting. SB-OTs facilitate maximal independence and participation for students of all abilities within the school environment. The OT profession's scope of practice uniquely positions SB-OTs to respond the disrupted development childhood adversity. SB-OTs can use trauma-informed care (TIC) principles and OT theory driven strategies to mitigate the negative effects childhood trauma causes on students. TIC is an approach to service delivery which seeks to recognize and respond to the negative effects trauma may have on students; it is grounded in creating a safe and supportive environment for them. As a profession, occupational therapy addresses individual, family and community, and environmental factors which are considered under the delivery umbrella of "trauma informed".

Despite the vast majority of OTs holding favorable opinions of TIC, there are multiple barriers to effectively using a TIC service delivery approach in practice (Bruce et al., 2018). Currently, there are no existing programs which target fine-motor skill development using an occupation-centered approach to TIC. To create an original framework for a program like this, a review of available and recent research and literature on SB-OTs use of TIC occurred and yielded very limited results. This paucity of evidence led to research conducted with a variety of SB-OTs across the United States to

gain a more consistent understanding of what the key components, facilitators and barriers of effective TIC are in school-based practice.

The purpose of this dissertation is two-fold:

1. To create a more consistent definition of what it means to provide TIC as a SB-OT, as well as understand primary barriers and facilitators to TIC OT service delivery within the school system.
2. To suggest a framework for the creation of a program which, informed by the above purpose, guides educators in the use of TIC principles and OT theories and concepts to support students with fine motor delays through school-based occupations.

Methodology for Purpose 1: NGT Research

To determine priorities for SB-OTs of key components to effective utilization of TIC in schools as well as facilitators and barriers of TIC delivery, original research utilizing the nominal group technique (NGT) occurred. NGT is a variation of a small group discussion which supports more equal participation of members than a traditional focus group, involves independent generation and sharing of ideas, and builds consensus in exploring and prioritizing ideas related to a specific problem or question (McMillan et al., 2016).

Participants were recruited primarily through convenience and snowball sampling. Participants gave informed consent, completed a demographic and competency survey via Qualtrics, and scheduled for a small group online video-conference call. Of the 32 interested participants who completed the survey, 24 participants representing 11 different states in the United States engaged in 5 separate groups. Of those who completed the survey, 93% self-identified as having either an intermediate or advanced knowledge and application of TIC in their school-based practice and 64% have been OT practitioners for more than 10 years. Approximately two-thirds of the participants reported working in a suburban area, while approximately one-third reported working in an urban area, and very few supporting students in a rural setting. Some participants did not have any advanced training related to trauma, and some had multiple. The most frequently reported advanced training courses were Polyvagal Theory, Trust-Based Relational Intervention (TBRI), and Neurosequential Model of Therapeutics (NMT).

Participants present for the online NGT focus groups were asked the following open-ended question: *What do you think are the key components of delivering trauma informed occupational therapy services? Another way to look at this is: what does it means to be a trauma-informed OTP?*

The participants had five minutes of silent generation of ideas, followed by anonymous sharing of ideas using an interactive and collaborative digital whiteboard web application. Next, participants grouped similar ideas together and decided on a category name for each grouping. Using an anonymous polling web application, participants ranked their

top priorities. Following a discussion clarifying ideas, if necessary, then a second vote would re-rank priorities. This process repeated with the following open-ended questions: *What are the personal and systems strengths & supports which facilitate effective delivery of trauma informed occupational therapy services? What are the personal and systemic barriers & limitations which inhibit the effective delivery of trauma informed occupational therapy services?*

After a consensus emerged among each group for each question, the categories were cross referenced between groups. Video transcripts were de-identified and reviewed for content accuracy. Upon comparing the results of all groups, a semi-structured interview occurred with a recognized expert in the field to corroborate the findings.

Methodology for Purpose 2: PRO-TIP Program

For the proposed framework of the program to support students' fine motor development using trauma-informed principles (TIP) and guided by OT theories and concepts, several steps occurred in its development. First, a program narrative originated with primary strategies and goal identification. This guided the program name: PRO-TIP, an acronym for Pediatric Remediation Outcomes: Trauma-Informed Principles. Next, a logic model constructed a visual representation of the logic between inputs, activities, outputs, and short, intermediate, and long-term outcomes of the proposed program. A specific theory emerged in the creation of the logic model. Supported through various OT theories and frameworks, as well as cognitive load theory as a guiding learning theory,

the framework for the PRO-TIP program began to take shape. Following the creation of the logic model, considerations for evaluation questions occurred, forming the basis of the PRO-TIP Program's evaluation matrix.

Key Findings

In comparing the NGT research data across groups, clear priorities emerged for each question.

- Key component priorities: Knowledge and training of trauma-informed best practices, creating a foundation of safety through regulation and relationship, educating/collaborating with school staff, client and family centered approach.
- Key facilitators: Knowledge of trauma-informed care, unique strengths of the OT profession, team collaboration and support, school system specific strengths, emerging laws/research
- Key barriers: School system specific barriers, limited resources, limited awareness of OT's professional capacity, and burnout/personal stress

Contributions to the Field of Occupational Therapy

1. NGT Research
    a. Contributes to a greater basis of evidence available for SB-OTPs about facilitating and limiting factors to TIC service delivery and guides future research.

b. Addresses part of the paucity of evidence of the experiences of SB-OTs around using TIC effectively to support students.
c. Highlights priorities among experienced SB-OTPs to guide future program design in schools, for entry-level OT students and practicing OTs knowledge.
d. Brought together likeminded individuals to create connections and relationships among participants to expand their support systems and allow for greater sharing of ideas among members outside of the research context.

2. PRO-TIP Program
    a. Lays a foundation for the first edition design of a program for entry-level SB-OTs or SB-OTs without a working knowledge and application of TIC.
    b. Improves SB-OTs time constraints (a key school-system barrier) by creating the program for any educator to use as a Response to Intervention (RTI) for tier 2 students in schools using a multi-tiered system of supports (MTSS) as a first step rather than suggesting an SB-OT evaluation.
    c. Supports students who do not qualify for an Individualized Education Program (IEP) or a 504 program.
    d. Expands school-based employees understanding of the OT scope of practice (a lack of which was identified as a key barrier)

e. Encourages a collaborative approach between school-staff and SB-OTs (a key facilitator)

Conclusion:

The creation of a framework for the PRO-TIP program emerged from a lack of evidence produced by SB-OTs to support SB-OTs and school staff using OT and TIC principles. This lack of evidence prompted the NGT research which led to the largest and most comprehensive research study done at this time for SB-OTs using TIC. Given the overlap between areas that can be negatively affected by ACEs and areas in which SB-OTs can support children in their school occupations, it is critical for the profession to have evidence-based research to guide their application of efficacious TIC in schools and to guide future research, programming, and funding allocations to support this need. Whether or not students have disclosed traumatic experiences, using a TIC approach in school-based practice is best practice. It changes the narrative from "what is wrong with you?" to "what happened to you?" Then, SB-OTs take it one step further and say, "what is right with you? what are your strengths?" This is the crux of client centered care which is a cornerstone of the OT profession.

APPENDIX G: FACT SHEET

Fact Sheet

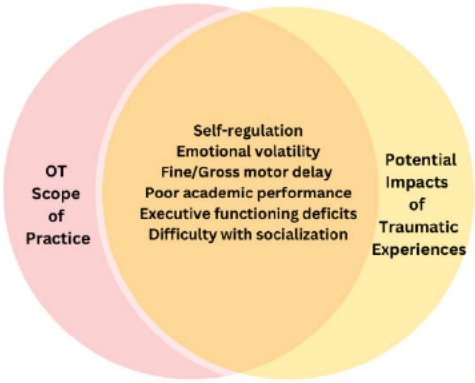
PROBLEM ADDRESSED

Limited evidence from the occupational therapy community exists about what constitutes effective trauma-informed care (TIC). There are currently no available protocols to support fine motor skill building using a trauma-informed lens.

"Experiences of childhood trauma are so pervasive that it may be expected to be the rule rather than the exception" (Khushalani & Welzant, 2017)

With a large overlap in the areas of occupation necessary for school participation and the potential negative effects of traumatic experiences, school-based occupational therapy practitioners (OTPs) have a unique skillset to support students in addressing these areas.

This capstone identifies two primary artifacts to support OTPs, researchers, and students and educators in schools: **Pediatric Remediation Outcomes: Trauma-Informed Principles (PRO-TIP) Program** and **Nominal Group Technique (NGT) Research**.



INTEGRATION OF ARTIFACTS

The results from the NGT research contribute to the available body of evidence for OTPs to use once disseminated and will guide the development and design of the PRO-TIP Program.

IMPACT STATEMENT

This capstone is **expanding the limited research and resources** on the intersection of school-based occupational therapy and TIC. It supports a greater knowledge of the systemic and personal strengths and barriers to supporting students in school. With the original NGT research and the PRO-TIP design, more students can be supported in their fine motor skills, building rapport, increasing their window of tolerance for learning, and share knowledge about effective TIC with educators guided by occupational therapy theories and trauma informed principles.

APPLICABILITY

The PRO-TIP is helpful for **educators** such as school counselors, occupational therapists, special education teachers, and paraprofessionals. It benefits the **students** who are struggling with fine motor skills for school occupations and who may present with common symptoms of traumatic experiences including: over or under responsive to stimuli, emotionally volatile, angry or aggressive, demonstrate lower academic functioning, have difficulty with executive function skills, or social participation.

The NGT Research is applicable and helpful for the **collaborative team** designing and publishing the PRO-TIP. It is of great benefit to the **research community** interested in supporting trauma-informed care and those interested in occupational therapy research advancements.

Artifact	Description	Issues Addressed
PRO-TIP Program Pediatric Remediations Outcomes: Trauma-Informed Principles	Program designed for educators to support students using trauma-informed principles and activities to target fine motor skill development	• Promoting educators' understanding of trauma-informed principles & therapeutic use of self • Creating a therapeutic alliance between students and educators • Improving students' fine motor skills and window of tolerance for school occupations • Supporting a more trauma-informed school culture
NGT Research Nominal Group Technique Research	Consensus building research using small groups of school-based OTPs exploring key components, strengths & barriers of TIC implementation	• Contributing to the available body of scholarly evidence on TIC for OTPs and researchers • Identifying priorities in key components of TIC as defined by school-based OTPs • Identifying priorities in barriers and facilitators for OTPs using TIC effectively in schools

SUPPORT AND ACCESS

The NGT research study originally was conducted in affiliation with the faculty and resources available at Temple University, information in upcoming publications details methodology for recreation. The PRO-TIP program manual, available through a self-publication platform, is available for public school districts, charter schools, and private schools. A one-day school in-service is provided for staff education prior to implementation.

APPENDIX H: CV

SARAH BLAISE ● CURRICULUM VITAE

Reading, PA ● (484) 269-7178 ● LinkedIn.com/SarahBlaise

EDUCATION

Temple University- OTD **August 2023**

Dissertation: Exploring Occupational Therapy Providers' Trauma-Informed Experiences to Improve School-Based Practice

Thomas Jefferson University- B.S. & M.S. **May 2020**

CREDENTIALS & LICENSURE July 2020

Registered Occupational Therapist by the National Board for Certification in Occupational Therapy (NBCOT)

Licensed Occupational Therapist, Pennsylvania

Positions Held November 2020- Present

Occupational Therapist

Schuylkill Valley School District

SOCIETY MEMBERSHIPS September 2016- Present

Pennsylvania Occupational Therapy Association

American Occupational Therapy Association

World Federation of Occupational Therapists

Presentations

Trauma-Informed Care in a School Setting: Occupational Therapy Interventions to Promote Emotional Regulation — **April 2020**

Thomas Jefferson University CREATE Day 2020

Revolutionizing Occupational Therapy Practice: A Trauma-Informed Approach — **October 2019**

Pennsylvania Occupational Therapy Conference 2019

Considering Trauma-Informed Care Through an Occupational Therapy Lens — **April 2019**

Resources For Human Development 2nd Annual Trauma-Informed Care Conference 2019