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**THE COMPREHENSIVE INTERVENTION FOR PREVOCCATIONAL
PROGRAMMING: AN OCCUPATIONAL THERAPY BASED APPROACH TO
FACILITE RETURN TO WORK POST BRAIN INJURY**

by

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"The human spirit is one of ability, perseverance, and courage that no disability can steal away."

- Haruki Murakami

DEDICATION

I dedicate this work to my parents, Jim and Michele Gittings, who inspired me to love with courage, live with grace and embrace all actions with kindness.

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**THE COMPREHENSIVE INTERVENTION FOR PREOVATIONAL
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ABSTRACT

Traumatic Brain Injury (TBI) is a significant public health concern that affects an estimated 5.3 million Americans. Approximately, 1 out of every 60 individuals experience a disability related to TBI, thus highlighting the significant burden on the affected population (ASBMB, 2021). A study conducted by Sharma et. al, stated that only 40.8% of individuals were able to return to employment after two years of experiencing BI, while a significant proportion of 20% remained unable to resume work due to the secondary deficits of their BI (2022).

Evidence indicates that return-to-work (RTW) rates among individuals diagnosed with BI are significantly lower due to physical and cognitive deficits. The presence of unemployment, especially among the BI population can result reduced opportunities for community engagement, a loss of sense of purpose or identity, and a notable decline in overall quality of life (QoL).

Occupational therapy (OT) is critical in the development of employability skills necessary for successful community reintegration including RTW. Despite this

connection, there is no training module for professionals to refer to when delivering prevocational services to individuals with BI. In the attempt to bridge this gap, the Comprehensive Intervention for Prevocational Programming (CIPP) was developed and implemented.

The CIPP represents an OT centered approach designed to facilitate the RTW process following a brain injury (BI). The primary goal of CIPP is to provide professionals with education on the prevocational process, enabling successful RTW. This intervention is structured around four modules, each serving distinct purposes: introduction to prevocational services, examination of BI's impact on RTW, outlining covered services, and defining the Occupational Therapy Practitioner's (OTP) role within the prevocational sector. Results of the study provided clinical evidence supporting the effectiveness of the CIPP as an impactful tool in educating professionals on the delivery of pre-employment services and further defining the role of the OTP in this domain.

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LIST OF ABBREVIATIONS

ACOTE	Accreditation Council for Occupational Therapy Education
AOTA	American Occupational Therapy Association
BIAA	Brain Injury Association of America
BI	Brain Injury
CIPP	Comprehensive Intervention for Prevocational Programming
EBP	Evidenced Based Practice
OT	Occupational Therapy
OTP	Occupational Therapy Practitioner
OTPF	Occupational Therapy Practice Framework
POTA	Pennsylvania Occupational Therapy Association
QoL	Quality of Life
RTW	Return to Work
TBI	Traumatic Brain Injury
VR	Vocational Rehabilitation

CHAPTER ONE - Introduction

Background

In the United States, an estimated 5.3 million Americans are living with an acquired or traumatic brain injury (TBI). According to the Brain Injury Association of America (BIAA), an approximated 2.8 million Americans sustained a brain injury (BI) in 2021, resulting 280,000 hospitalizations and 50,000 fatalities (BIAA, 2022). This information emphasizes yet another significant statistic: 1 in every 60 people have a BI-related disability (ASBMB, 2021). Based on the most recent published data, males are nearly two times as likely to suffer a BI than females and account for 59% of all BI related medical visits in the United States (CDC, 2022). Males ages 65 years or older and young adults between the ages of 15-24 years are most affected by this type of injury. Leading causes of traumatic brain injury among Americans include falls (47.9%), being struck by or against an object (17.1%) and motor vehicle accidents (13.2%) (BIAA, 2022).

Among adults who sustained a traumatic brain injury, only 40.8% returned to competitive employment after 2 years and 20% of individuals were unable to return to their vocational pursuits (Sharma, 2022). This statistic illuminates a prevalent clinical issue that demands to be addressed: Individuals with brain injuries are at a decreased likelihood to return to work secondary to physical and cognitive impairments which ultimately result in decreased quality of life. Common physical deficits that impact individuals with brain injuries attaining gainful employment include impaired gait, decreased bilateral coordination skills, low activity tolerance, impaired fine motor

abilities, and compromised vision. Predominant cognitive impairments found in individuals with BI include impaired executive functioning skills, specifically in the areas of judgement reasoning, attention, and self-awareness (Lequerica & Neumann, 2018). Additionally, individuals with BI often present with impaired short term and working memory as well as decreased initiation. These affected performance skills act as major barriers to exploring, acquiring, and maintaining competitive employment which result in lower quality of life and decreased opportunities for community reintegration (Lequerica & Neumann, 2018).

Statement of the Problem and Why it Matters

According to the Bureau of Labor Statistics, approximately 165.7 million Americans were gainfully employed in 2020. This number accounts for nearly 63% of the population. Of those 165.7 million working citizens, nearly 80% reported working full time. (BLS, 2022). A recent systematic review found strong evidence that employment reduces the risk of depression and improves general mental health (Antonisse and Garfield, 2018). Although financial security is the one of the highest motivating factors, employment has been proven to benefit the individual deeper social-emotional and cognitive levels. Competitive employment allows individuals to expand their social circle, promote productivity, develop a sense of identity, transfer learned skills to work environments and increase overall self -esteem in completing novel work related tasks (PDE, 2018).

Individuals with BI who are unable to return to work status-post injury are at much higher risk of suffering from a severe psychological toll. According to a study

published by the PEW Research Center, 70% of adults report feeling of stress, 56% reported increase mental health issues such as anxiety or depression, 53% reported feeling a loss of identity and 41% admit to an increase in argumentative behavior as a result of unemployment (Parker et al., 2021). The psychological effects of job loss, secondary to BI, will inevitably manifest into physical symptoms including weight gain which impacts mobility, avolition which decreases action initiation and cyclically affects decreased activity engagement. It is evident unemployment, specifically for individuals with BI, will lend itself to reduced opportunities for community engagement, lack of purpose and decreased overall quality of life. This is the gap which will be addressed by the doctoral capstone process and resulting program entitled, Comprehensive Intervention for Prevocational Programming (CIPP).

Role of Occupational Therapy

This topic embodies the foundation on which the occupational therapy profession (OT) was built. The cornerstone of the profession is based on the idea of returning individuals with physical and/or cognitive impairments back to meaningful engagement. As previously cited, many individuals find self-worth and identity through work therefore, when those routines are interrupted by the onset of BI, that sense of self is lost. Addressing this clinical issue through an occupational lens is critical however, there is limited up to date evidenced defining the role of OT in facilitating employment of individuals with brain injuries. This lack of research exploring the responsibilities of OT in the development of (pre) vocational skills necessary to promote job readiness demands to be addressed on multiple levels.

Proposed Solution: Central Commitment to Bridging this Gap

Occupational therapy professionals currently lack an established protocol to guide the return to work (RTW) process for individuals with BI. In the attempt to bridge this gap, the Comprehensive Intervention for Pre-Vocational Programming (CIPP) will be developed to educate practitioners on this occupational performance area. The CIPP will be informed by an extensive literature search as well as a Pre/Post Training Survey evaluating the impact on participants knowledge, clinical skills, and self-perceived confidence in the effective delivery of prevocational services for the BI population.

Figure 1: Mind Map

The illustration below depicts initial planning for development of the CIPP.



CHAPTER TWO

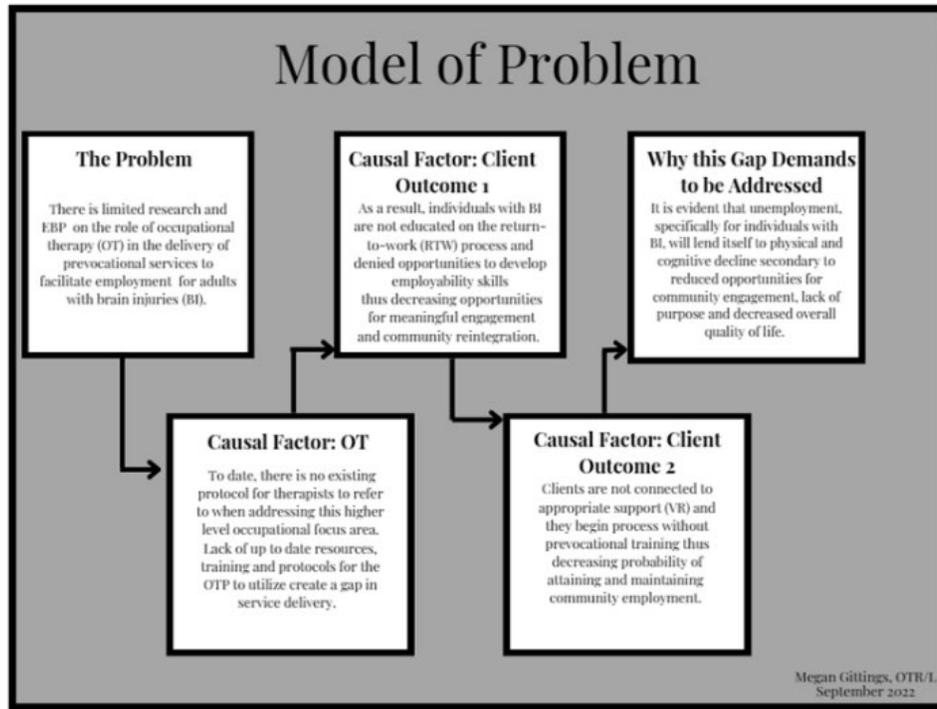
Project Evidence and Theoretical Base Supporting Central Commitment

This chapter will present evidence supporting causal factors contributing to the problem. A visual model of the problem will be used to guide the evidence review. Additionally, theoretical support for understanding the problem and the proposed solution will be presented. Finally, evidence on previous efforts to address the problem will be synthesized.

Introduction

Despite the positive correlation between occupational therapy (OT) services and a successful return to work (RTW) experience for individuals with brain injury (BI), there is no existing protocol or evidenced based practice (EBP) for therapists to refer to when addressing this performance area for individuals with BI. In the attempt to bridge this gap, it is imperative that healthcare professionals, specifically occupational therapy practitioners (OTP), have access to additional training on the delivery of prevocational services. The development and implementation of a uniform training program that aims to educate OTPs on the prevocational process leading to RTW will not only increase practitioner competency, but ultimately improve client outcomes. This view is supported in an article published by Kita et al., which states that researchers must develop consistent definitions of RTW, identify key outcome measures and develop tools best suited for measuring vocational outcomes following BI (2011).

Figure 2: Model of the Problem



Theoretical Models to Understand the Problem

The preliminary vision of addressing this issue occurs at four levels: individual, interpersonal, organizational, and community. Based on the Socio-Ecological Model, the individual level refers to the person, their characteristics, factors, and performance skills (CDC, 2022). At this level, the practitioner will evaluate the client using prevocational assessments to determine appropriateness of services and assess the individual's readiness to pursue sheltered or competitive employment. It is the intention to further address the issue at this level through the development of guidelines intended to assess, evaluate, and treat individuals with BI who are in the RTW process.

The interpersonal stage is twofold for both client and practitioner. The interpersonal level includes the client's close social influences that impact his/her behavior. Individuals within this network may include caregivers, family, service coordinators etc. At this stage, the

practitioner will be responsible for educating the client's support network regarding process of returning to employment. On a deeper level, the treating practitioner will track the clients progress toward employability skills using job readiness assessments and collaboration with vocational rehabilitation professionals.

The organizational level refers to the environment in which the person is completing their meaningful occupations and with that comes community level which emphasizes the relationship between organizations. At this level, a protocol for practitioners is developed as a part of the current doctoral capstone project to follow to address all client needs throughout the duration of (pre)vocational process.

In an analysis of the Model of the Problem, the initial causal factor that contributes to this gap in service delivery is the lack of education, training, and existing protocol for therapists to refer to when addressing this higher-level occupational focus area. To bridge this gap, a procedure is being created for therapists to consult when providing prevocational services. This component is supported by andragogy with application of Adult Learning Theory. The principles of this include the following: adults are internally motivated and self-directed; adults bring life experience and knowledge to learning, goal oriented, relevancy oriented, practical, and adults like to be respected (Knowles, 2014). Utilizing the constructs presented within the Adult Learning Theory will assist in successful development and execution of this educational resource.

The secondary client causal factors are twofold, clients are not properly educated on the importance of employment in life after BI and are not afforded the just right opportunities to increase self-efficacy in their role as worker. Alternatively, they begin employment processes

without prevocational training thus decreasing probability of success. It is clear that the Work Functioning Conceptual Framework, developed by Jan Sandqvist, would best address this area. This framework is divided into three different dimensions that develop the client's understanding and development of work performance skills. The first dimension is 'Work Participation and Society.' Work participation is an individual's ability to explore, acquire and maintain gainful employment. Dimension two is 'Work Performance and the Individual.' Work performance refers to the client's capabilities to perform the required task demands of a work position and finally, dimension three is 'Individual Capacity and Physical/Psychological Functioning.' (Sandqvist & Henriksson, 2014. P. 152). This relates to the clients' physical, cognitive, social-emotional, and environmental factors that impact job readiness.

The principles of the Work Functioning Conceptual Framework directly correlate to the information presented in the model of the problem. The dimensions promote client education and prevocational skill acquisition throughout the progression of the vocational process which result in more desirable client outcomes. The author states that, "This framework can be used as a screening tool and instrument selection to assess clients' underlying problem area, which indirectly leads to well-founded interventions," (Sandqvist & Henriksson, 2014, p. 155). This framework provides the foundation for possible solutions.

Guiding Questions for Evidence Supporting Problem Model

1. Is there evidence that individuals with BI who are not participating in (pre)vocational activities are at risk for reduced opportunities for community engagement and lack of purpose?

2. Is there evidence that individuals with BI would benefit from prevocational training program to acquire and maintain gainful employment necessary for successful community reintegration?
3. Is there evidence that the role of OT in the delivery of prevocational services has not been fully defined, or that OTPs are not receiving enough prevocational training contributing to decreased awareness and competency in OTPs and thus a gap in service delivery?

Summary of Evidence Supporting Problem Model

Is there evidence that individuals with BI who are not participating in (pre)vocational activities are at risk reduced opportunities for community engagement and lack of purpose?

Many individuals with BI diagnoses are in their productive working years (Donker-Cools, 2018). Therefore, return to work (RTW) is often a primary goal of recovery (Materne, 2016). Despite this fact, among adults who sustained a BI, only 40.8% returned to competitive employment after 2 years and 20% of individuals were unable to return to their vocational pursuits (Sharma, 2022). A study conducted and published by the PEW Research Center proved that unemployment, specifically for individuals with BI, will lend itself to physical and cognitive decline secondary to reduced opportunities for community engagement, lack of purpose and decreased overall quality of life (Parker et al., 2021).

Predominant cognitive impairments found in individuals with BI include impaired executive functioning skills, specifically in the areas of judgement reasoning, attention, and self-awareness (Lequerica & Neumann, 2018). Among the psychological effects of reduced

opportunities for return to work (RTW) post BI include stress, mental health issues such as anxiety or depression, a loss of identity and decreased self-regulatory skills resulting in argumentative behavior (Parker et al., 2021). The psychological effects of job loss have the potential to manifest into physical symptoms including fatigue, weight gain, impaired mobility and avolition resulting in decreased action initiation. These symptoms combined with cognitive impairments and residual physical dysfunction resulting from BI act as a barrier to RTW (Scaratti, 2017).

Alternatively, the benefits of achieving gainful employment among individuals with BI have a direct impact on quality of life (QoL). Competitive employment allows individuals to expand their social circle, promote productivity, develop a sense of identity, transfer learned skills to work environments and increase overall self-esteem in completing novel work related tasks (PDE, 2018). A recent systematic review found strong evidence that employment reduces the risk of depression and improves general mental health (Antonisse and Garfield, 2018).

Is there evidence that individuals with BI would benefit from prevocational training programs to acquire and maintain gainful employment necessary for successfully community reintegration?

Studies show that people who were successful in returning to work post injury perceived a larger improvement in QoL from discharge to follow up one year after injury compared to those who did not (Materne et al., 2018). Additional research also found strong associations between productive lifestyle and QoL (Arwert et al, 2016). These results support the American Occupational Therapy Association's (AOTA) statement that "work performance supports meaningful participation, personal fulfillment and structure in daily life which is essential for

people's health and wellbeing" (2017). This information provides a foundation for which healthcare professionals, specifically occupational therapy practitioners (OTPs), can build on to facilitate employment for individuals with BI.

Is there evidence that the role of OT in the delivery of prevocational services has not been fully defined, or that OTPs are not receiving enough prevocational training contributing to decreased awareness and competency in OTPs and thus a gap in service delivery?

The Occupational Therapy Practice Framework (OTPF) defines work as "labor or exertion; to make, construct, manufacture, form, fashion, or shape objects; to organize, plan, or evaluate services or processes of living or governing; committed occupations that are performed with or without financial reward" (AOTA, 2020). The OTPF further deconstructs work into six focus areas which include: employment interests, employment seeking and acquisition, job performance, retirement preparation and adjustment as well as volunteer exploration and participation. Each of these areas can be addressed by the OTP through the implementation of individualized intervention plans focused on the inclusion of "work-related activities to facilitate, increase, or improve productive work behaviors and skills" (AOTA, 2017).

Despite the inclusion of 'work' within the OTPF, there is no mention of 'prevocational' or 'vocational' service delivery for entry-level education within the ACOTE standards. In fact, standard A.5.1. Curriculum—Preparation to Practice as a Generalist, states that:

the curriculum must include preparation for practice as a generalist with a broad exposure to practice settings (e.g., school, hospital, community, long-term care) and practice areas, including new and emerging areas (as defined by the program). The curriculum must prepare students to work with a variety of populations including, but not limited to,

infants, children, adolescents, adults, and older adults in areas of physical and mental health (ACOTE, 2018, p. 19).

The community practice setting is primarily the stage for delivery of prevocational services however, the term is vast and encompasses a wide variety of diagnoses. This is arguably a cause of the gap that has emerged in the understanding of the role of OT in delivery of prevocational services.

It is evident that OT services are critical to the development of prevocational skills necessary to increase the probability of successful job acquisition. Individuals receiving vocational rehabilitation services provided by OTPs in a community-based setting is a predictive factor of success in attaining and maintaining work (Chuang et al., 2015). Findings from a recent study also suggested that the higher stability of employment and job tenure directly correlates with the presence of vocational support, including work trials, with follow-up by a vocational therapist (Ponsford and Spitz, 2015).

Guiding Questions to Structure Review of Current Methods

1. What prevocational training programs exist for OTPs to utilize during RTW process for individuals with BI?
2. Is there evidence that the inclusion of a prevocational training program results in increased knowledge and perceived competency of the primary OTP?

Efforts that aimed to develop and implement a prevocational training program to facilitate employment for individuals with BI were reviewed and included peer-reviewed, qualitative and quantitative studies relating to identified gap in service delivery. It was noted that the primary authors of the supporting evidence consisted of OT, neurologists, social workers,

psychologists, neuro psychologists and health care counselors. To locate and identify relevant information regarding current methods, an advanced evidence search was completed via Temple University Libraries, and the American Occupational Therapy Association (AOTA) website archives using the following keywords and search terms and filters:

Applied filters included “peer reviewed only” with publication dates spanning from “2012 - 2022.” Key search terms included: “traumatic brain injury” or “brain injury”; “prevocational” or “vocational”; “occupational therapy” or “rehabilitation” ; “employment” or “job”; “programming” or “training” and “implementation” or “application.”

Analysis and Synthesis of Previous Efforts

What prevocational training programs exist for OTPs to utilize during RTW process for individuals with BI?

The most recent attempt to develop and implement a vocational training program was published by a team of researchers within the English National Health Service (NHS). The initial study completed by Holmes et al., critically analyzed the development and evaluation of the Early Specialized Traumatic Brain Injury Vocational Rehabilitation (ESTVR) training package. This package was developed by experts in VR and BI, it included a manual with direct instruction by six trainers and opportunity for mentorship by four therapists. Following the training, therapists were interviewed regarding the effectiveness and package usability (Holmes et al., 2016).

The results of this study identified the promoting factors and barriers in relation to the ESTVR. Therapists reported acquiring the knowledge necessary to implement individualized intervention. The data suggested that the training packages require detailed descriptions of the

interventions being taught for implementation within the NHS and for future research. The training materials were valued by therapists however, required increased time for familiarization as well as reminders from mentors to put training into practice (Holmes et al., 2016). On a deeper level, this study allows OTPs to understand components of a VR training package for people with BI and shows that OTPs positive experiences of the training prepared them in implementing interventions (Holmes et al., 2016). Essentially, this research not only supports the inclusion of VR protocol in the RTW process but furthermore, establishes a direct relationship between VR training and competence of the OTP. Authors also provide suggestions for future research which include utilization of technology to promote use of manual, larger participant pool and increased time for OTP learning (Holmes et al., 2016).

A subsequent study published by Radford et al. in 2018 explored the development of the ESTVR since the program's initial launch and its role as a job retention intervention. ESTVR was delivered by OTs in the community. It involved assessing the impact of BI on work roles and responsibilities and finding acceptable strategies to overcome problems and prevent job loss. (Radford et al., 2018). Participants were asked to complete self-report survey at start of study and 12 months post. The survey measured the effectiveness and costs of the VR over usual care (UC). Results indicated that VR in addition to UC was valued by participants.

Strengths of this study were clearly defined; first, the protocol was robust. "The majority of feasibility objectives were met or, when not achieved, strategies for achieving targets in a definitive trial were identified" (Radford et al., 2018. P. 103). Additionally, the authors discuss the impact of training practitioners on the delivery of ESTVR. Therapists were successfully trained to deliver ESTVR alongside usual NHS rehabilitation. The intervention was found to be

safe, well received and highly valued by BI participants and employers (Radford et al., 2018). This finding answers a primary research question regarding the effectiveness of a prevocational training program. However, one major limitation of this study, participant retention was low therefore results were not highly generalizable. It is imperative to note that the authors suggest that OTs be trained and mentored to deliver a BI VR intervention with high levels of fidelity. Enhancing the skills of community OTs with specialist VR experience is considered the best way of delivering the intervention (Radford et al., 2018). This statement directly supports the identified gap and reinforces that need for a protocol for OTPs to refer to when delivering prevocational services.

A study conducted by Van Velzen et al., aimed to explore the evaluation of the implementation of the protocol of an early vocational rehabilitation (EVR) intervention for people with BI (2015). The purpose of this study was to appraise the feasibility of an EVR protocol in the standard rehabilitation process, identify affordances/barriers within the EVR protocol, and determine the perceived effectiveness of the protocol in facilitating RTW post BI. The results of the study were twofold, first the participants perceived the protocol as being suitable to facilitate RTW after BI. Secondly, the data indicated that the EVR protocol provided a structured strategy to focus on RTW during standard rehabilitation (Van Velzen et al., 2015).

Affordances noted by rehabilitation professionals included overall structured protocol and the client centered approach. Barriers focused on the amount of time allotted to utilize the protocol in accordance with the EVR guidelines (Van Velzen et al., 2015). The findings of this study illuminate the importance of an established protocol for delivery of VR services. A

uniform resource implemented throughout an organization will allow for a more effective and comprehensive interventions leading to successful RTW.

In 2011, researchers Stergiou-Kita, Dawson and Rappolt, published complementary articles which contributed toward bridging this gap. The first study, “Developing inter-professional clinical practice guideline for vocational evaluation following traumatic brain injury: A systematic and evidence-based approach” aimed to introduce an interprofessional clinical practice guideline for vocational evaluation following traumatic brain injury. “This guideline aims to explicate the processes and factors relevant to vocational evaluation to assist evaluators in collaboratively determining if clients are able to work and to make recommendations for work entry, re-entry or vocational planning” (Stergiou-Kita et al., 2011, p.171).

Results of the study identified seven domains that should be included within clinical practice guidelines: (1) evaluation purpose and rationale; (2) initial intake process; (3) assessment of the personal domain; (4) assessment of the environment; (5) assessment of occupational/job requirements; (6) analysis and synthesis. (7) evaluation recommendations (Stergiou-Kita et al., 2011). The findings from this literature review are relevant because it examines the overall effectiveness of work evaluations. The information presented in this article will provide basis for the initial components (i.e. Assessment Plan) of the Comprehensive Intervention for Pre-Vocational Programming (CIPP).

The secondary article entitled “Towards developing a guideline for vocational evaluation following traumatic brain injury: The qualitative synthesis of clients’ perspectives” was published in 2012 by researchers Stergiou-Kita, Dawson and Rappolt. This study identified the

clients' perspectives of the elements significant to return to work following BI. It was part of a larger review completed to provide the EBP for developing a clinical framework for vocational evaluation following BI (Stergiou-Kita, 2012). The analysis of the client perspectives resulted in four key themes which included: meaning of work; process of RTW and reconciling new identities; opportunities to try versus risks of failure and finally, the significance of supports. Results of the study concluded that vocational evaluation should include the assessment of the aforementioned themes however, the authors emphasized the importance that additional studies should be conducted to learn more about client's RTW process, specifically within the context of BI rehabilitation (Stergiou-Kita, 2012).

An additional study completed in 2017 by Haveraaen et al., explored "The first six years of building and implementing a return-to-work service for patients with acquired brain injury. the rapid-return-to-work-cohort-study." The researchers acknowledge a key recurring theme, "implementation of best-practice return-to-work (RTW) programs in new and diverse contexts is seen as a considerable challenge for the future. Such programs are complex, especially as the health care services need to interact with the social security offices and the workplaces (Haveraaen et. al, 2017, p. 623). This statement reinforces the crux of my research.

The vital information from this article relates to the components within the Rapid RTW Program. According to the authors, the RTW professional team consisted of a "neuropsychologist, an OT, OTA, physiotherapist, social worker, and a specialist in physical medicine. The RTW service had a structure of individual and group-based interventions, collaboration, and meetings that each patient can choose to participate in" (Haveraaen et. al, 2017, p. 624). The four types of individual interventions were collaborations within the

following areas: hospital, meetings with the social insurance office, meetings at the workplace, and home visits. Participants were then offered two options with group based interventions.

“The first intervention is a full-time 1-week group-based program, where the goal is to give the patients more information and knowledge about their own resources and limitations” (Haveraaen et. al, 2017, p. 624). This group structure directly corresponds to the Stage 1 of the Model of Occupational Self Efficacy which is the identified framework for developing the CIPP. The second group intervention is a 6-month group-based program where the patients come to the hospital for 5 hours every second week for further education and information about the BI and its affect on work participation (Haveraaen et. al, 2017).

Is there evidence that the inclusion of a prevocational training program results in increased knowledge and perceived competency of the primary OTP?

There is limited evidence exploring the impact of a prevocational training program on the knowledge, confidence and perceived competence of OTPs involved in the RTW process for individuals with BI. This provides the foundation for current research and acts as the catalyst for program development necessary to bridge this gap in service delivery.

Conclusion

Based on a synthesis of previous efforts, it is evident that there is need for a uniform training manual for professionals to refer to when delivering prevocational interventions. This statement is directly reinforced in a study conducted by Holmes et al. which reported that access to training will allow OTPs to better understand components of VR for the BI population (2016). It is imperative to note that much of the existing evidence discusses VR for individuals with BI,

however, there is significantly less literature exploring the importance of prevocational service delivery for this population. This notion supports the overall Model of the Problem and provides the foundation for this doctoral research.

The review illuminated crucial information that must be integrated into the CIPP protocol to optimize clinical efficacy. A study completed by Stergiou-Kita et al., identified seven domains for vocational evaluation followed BI which should be modified to fit prevocational services and included within CIPP training. Despite the evidence linking the presence of an OT to successful RTW outcomes, there is no literature delineating the role of the OTP in this sector. This gap will also be explored and addressed by the CIPP. Furthermore, evidence pertaining to existing VR manuals emphasize the importance of time allotment for the learner. This concept will be reflected within the CIPP as it will be a readily accessible, asynchronous, and self-directed course which allows the learner ample time to reflect on content.

In the attempt to maximize CIPP effectiveness, the protocol will be rooted in the Adult Learning Theory. The principles of this theory state that adults are internally motivated and self-directed, this is reflected in the platform for CIPP delivery as it will be entirely self-paced. Moreover, adults bring life experience to learning which will act as the catalyst for conversation and idea exchanges on asynchronous discussion boards (Knowles, 2014). The CIPP will be constructed by and for the adult learner to foster a personalized and empowering educational experience which will enabling professionals to take ownership of their learning journey and maximize their skills in prevocational service delivery.

CHAPTER THREE: Description of Central Commitment

Proposed Solution

Occupational therapy (OT) services are essential to the development of prevocational skills necessary for successful job exploration, acquisition, and tenure. Individuals receiving vocational rehabilitation (VR) services provided by occupational therapy practitioners (OTP) in a community based setting is a predictive factor of success in attaining and maintaining work (Chuang et al., 2015). Despite the direct link between OT services on a successful return to work (RTW) experience, there limited evidenced based practice (EBP) for professionals to refer to when addressing this performance area for individuals with brain injury (BI). This gap in clinical research will be bridged through the development and implementation of the Comprehensive Intervention for Prevocational Programming (CIPP).

The CIPP is an OT based approach to facilitate RTW post BI. The primary objective of the CIPP is to educate professionals on the prevocational process leading to successful RTW. Inclusion of this programming will increase competency through the establishment of guidelines for specialists to refer to throughout the duration of the RTW experience. Content within the CIPP is derived from an extensive review of existing literature as well as qualitative and quantitative information gleaned from surveying individuals who are actively delivering prevocational services to the target population. It is anticipated that access to the CIPP will enhance the delivery of prevocational services and improve client outcomes. Furthermore, the CIPP will define the role of the OTP in the RTW process.

Program Components

The CIPP will consist of the four primary components listed below. Each program area will offer specially designed resources for professionals to utilize in the delivery of prevocational services.

- A.** A Comprehensive Assessment Plan
- B.** Resources for Development of Best-Match Pre-Vocational Intervention Plan
- C.** Training Guidelines for a CEU Program for All Professionals working in Pre-Vocational Activities
- D.** Training Guidelines for Establishing the OTP as the Pre-Vocational Coordinator

A. Comprehensive Assessment Plan

The CIPP will provide professionals with an original assessment plan to facilitate the evaluation process for individuals with BI referred to prevocational services. The constructs of the assessment plan will be rooted in the Soeker's Model of Occupational Self-Efficacy.

B. Resources for Development of Best-Matched Pre-Vocational Intervention Plan

This program will include a list of resources to promote the development of individualized intervention plans based on the unique needs of the client. Supplemental materials included in this area aim to provide the treating professional with an in depth understanding of the client's skill set and vocational interests. Professionals can utilize this information to develop client centered interventions based on identified vocational pursuits. Work skills related to this area can

then be further refined. Resources will include a brief description and instructions for delivery. Supplementary assessments are as follows: the Client Summary Tool and the Community Based Prevocational Transferable Skills Assessment Checklist.

C. Training Guidelines for a CEU Program for All Professionals Working in Pre-Vocational Activities

The CIPP will also serve as an educational resource to define training guidelines for professionals working in prevocational activities with the BI population. It is expected that the inclusion of these training guidelines will increase knowledge and competency in the delivery of prevocational services. These guidelines will be divided into the four modules, please see the outline of example content below:

- Module I: Introduction to Pre-Vocational Services
 - Definition
- Module II: Overview
 - Importance of Pre-Vocational Services Specific to the BI Population
- Module III: Covered Services
 - Following work instructions, routines and schedules
 - Developing appropriate workplace skills
 - Improving work performance skills
 - Advocating with employers
 - Client education
- Module IV: Occupational Therapy and Pre-Vocational Services
 - Explores the role of the OTP in the RTW process

D. Training Guidelines for Establishing the OTP as the Pre-Vocational Coordinator

The American Occupational Therapy Association's (AOTA) reports that "work performance supports meaningful participation, personal fulfillment and structure in daily life which is essential for people's health and wellbeing" (2017). This information emphasizes the importance of the OTP's active role in the RTW process. Within the training guidelines presented in Section C, there will be a fourth and final module explicitly defining guidelines to establish the role of the OTP as the prevocational coordinator. Please see an outline of example content below:

- Module IV: Occupational Therapy and Pre-Vocational Services
 - Work as an Occupational Focus Area
 - Role of OTP
 - Responsibilities as Coordinator
 - Advocacy

Expected Outcomes

It is expected that data gleaned from pre/post surveys will inform the development of the CIPP guidelines. Moreover, implementation of the CIPP will result increased knowledge, perceived knowledge, perceived competence, and perceived confidence in delivery of the prevocational services. Additionally, the programming will promote public understanding and further define the role of the OTP within the prevocational sector.

Projected Barriers

An organizational barrier that may challenge the implementation of the CIPP is ease of access. It is imperative that this resource be easily identifiable by the target population. The vast majority of professionals are operating under a perceived or actual time deficit, therefore the CIPP must be present in initial search results. In order to overcome this obstacle, the platform on which the CIPP is delivered must be online with a printable PDF component.

A personal barrier that may challenge the implementation of the CIPP directly relates to this writer's novice status within the realm of advanced research methodology. With any endeavor, particularly one that is an initial attempt, we must account for human error. Strategies to reduce the impact of this barrier are to continuously increase knowledge of research practice, utilize professional resources and seek opportunities to advance evaluative thinking skills in this area.

CHAPTER FOUR: Outcome Measurement Plan for Artifact(s)

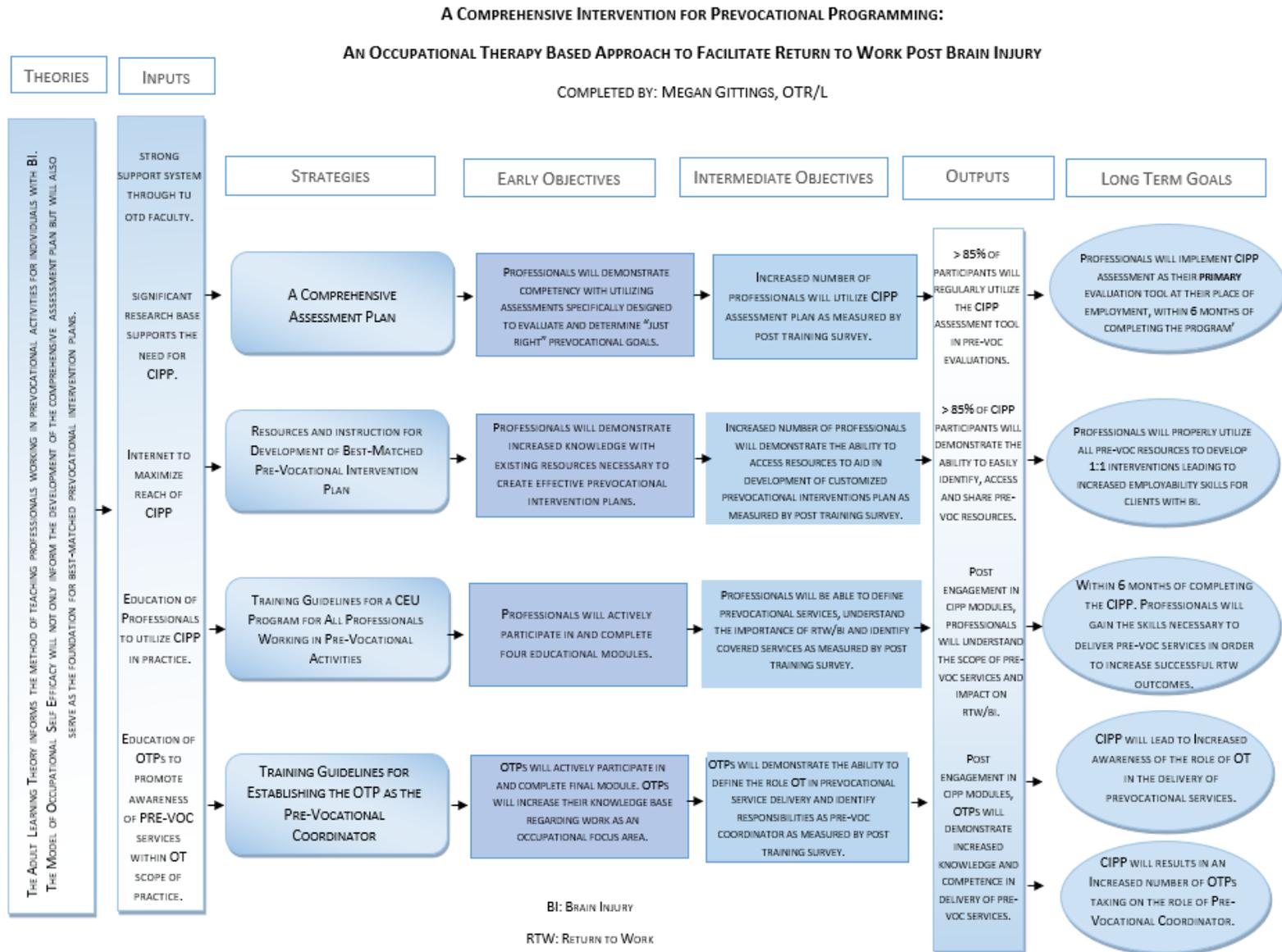
Background of Program

There are limited resources and evidenced based practice (EBP) for therapists to refer to when developing employability skills for individuals with BI. The main objective of the CIPP is to educate professionals on the prevocational process leading to successful RTW. Inclusion of this programming will increase competency through the establishment of guidelines for specialists to refer to throughout the duration of the RTW experience. It is anticipated that access to the CIPP will enhance the delivery of prevocational services and improve client outcomes. Furthermore, the CIPP will define the role of the OTP in the RTW process.

Target Population

The target population with which the CIPP aims to serve is professionals working in prevocational activities for individuals with BI. Ideally, the reach of the CIPP will then extend to the consumers (individuals with BI) to increase the probability of a successful RTW experience. The CIPP will be developed by this writer, Megan Gittings, OTR/L in collaboration with Dr. Abbott-Gaffney.

Figure 3: The Logic Model



Strategies and Activities

The CIPP consists of four major components that aim to improve prevocational service delivery.

A. A Comprehensive Assessment Plan:

- The CIPP will provide professionals with an original assessment tool which will be rooted in Soeker's Model of Occupational Self-Efficacy

B. Resources for Development of Best-Matched Pre-Vocational Intervention Plan

- The CIPP will include a list of existing resources to promote the development of individualized intervention plans. These resources will include a brief description and instructions for delivery.

C. Training Guidelines for a CEU Program for All Professionals Working in Pre-Vocational Activities

- Module I: Introduction to Pre-Vocational Services
- Module II: Overview
 - Importance of Pre-Vocational Services Specific to the BI Population
- Module III: Covered Services
 - Developing appropriate and improving workplace skills
 - Advocating with employers and client education
- Module IV: Occupational Therapy and Pre-Vocational Services
 - Explores the role of the OTP in the RTW process.

D. Training Guidelines for Establishing the OTP as the Pre-Vocational Coordinator

- Module IV: Occupational Therapy and Pre-Vocational Services
 - Work as an Occupational Focus Area
 - Role of OTP and Responsibilities as Coordinator
 - Advocacy within RTW

Participants will be required to complete the following modules within sections C and D.

Key points to review will be included at the end of this segment in an interactive assessment format.

Program Theory

Strategy A: A Comprehensive Assessment Plan

Providing professionals with an assessment plan will improve their competency by utilizing evaluations specifically designed to determine “just right” prevocational goals. As the program gains traction, an increased number of professionals will gain exposure to the CIPP and employ the Comprehensive Assessment Plan. Within 6 months of completing the program, the Comprehensive Assessment Plan will become the primary evaluation at their place of employment.

Strategy B: Resources for Development of Best-Matched Pre-Vocational Intervention Plan

Providing professionals with resources and instruction for the development of best-matched prevocational intervention plans will improve knowledge of existing materials and enhance both competency and confidence in the implementation of prevocational services. This

strategy will result in an intermediate and long term outcome. First, an increased number of professionals will demonstrate the ability to access and employ resources related to prevocational services. The second and overarching outcome, professionals will properly utilize all prevocational resources to develop 1:1 interventions leading to increased employability skills for clients with BI.

Strategy C: Training Guidelines for Professionals Working in Pre-Vocational Activities

Providing training guidelines for a CEU program for all professionals working in prevocational activities will allow for increased knowledge and competency. Upon completion of the modules, professionals will have the ability to define prevocational services, understand the relationship between returning to work (RTW) post BI, and identify covered services. Within 6 months of completing the CIPP, professionals will gain the skills necessary to deliver pre-voc services to increase successful RTW outcomes for clients with BI.

Strategy D: Training Guidelines for Establishing the OTP as the Pre-Vocational Coordinator

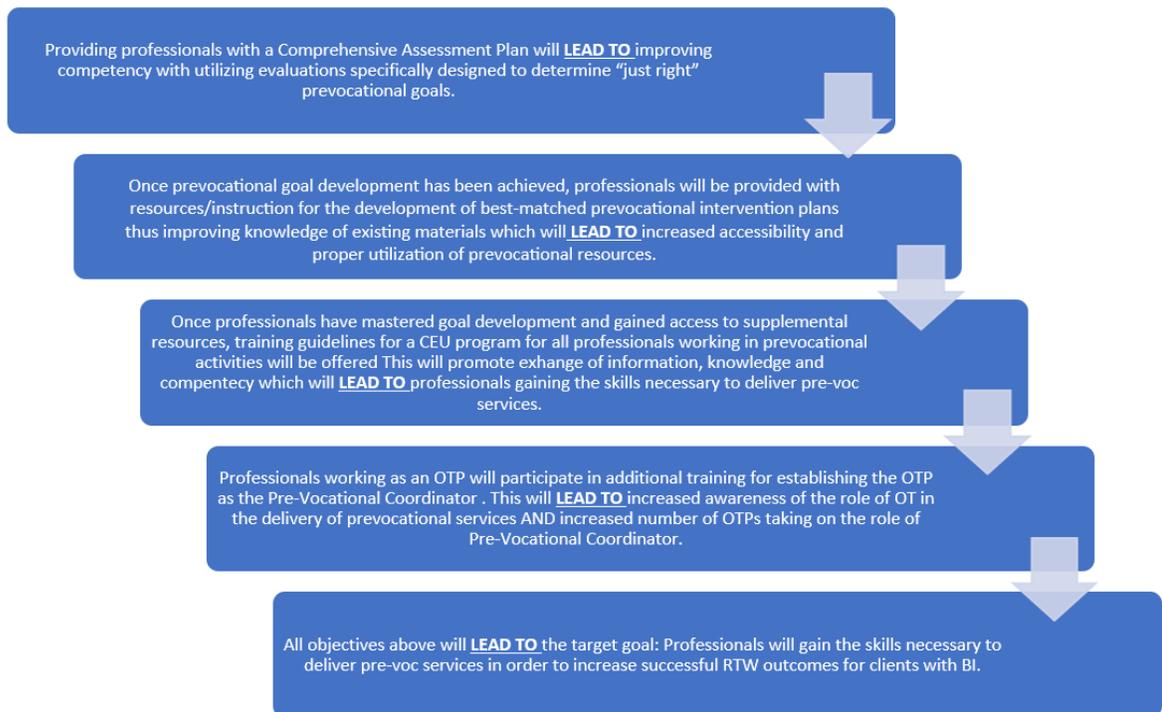
Providing training guidelines for establishing the OTP as the Pre-Vocational Coordinator will increase the practitioner's knowledge base regarding work as an occupational focus area. OTPs will demonstrate the ability to define the role OT in prevocational service delivery and identify responsibilities as prevocational coordinator. The long-term outcomes are twofold: First, the CIPP will lead to increased awareness of the role of OT in the delivery of prevocational services. Second, CIPP will result in an increased number of OTPs taking on the role of Pre-Vocational Coordinator.

Contextual Conditions

There are several contextual conditions that need to be addressed to promote successful implementation of the CIPP. The CIPP requires an online platform to launch educational modules/training guidelines. As the CIPP is an online resource, professionals participating in the modules will need an electronic device (i.e., tablet, laptop, smart phone, or gaming console) with access to WIFI. The CIPP is a self-paced, on demand training course therefore there is no location required for in-person learning. The CIPP does not require outside funding, it will be a free resource readily available to professionals seeking additional information on the delivery of prevocational services.

Figure 4: Model of Program Theory

A Process Model of the Program Theory



Evaluation Approaches

The CIPP will be a mixed methods study. A mixed method study is an evaluation that relies on both quantitative and qualitative data. This is reflected in the design of the Pre/Post CIPP Surveys as the prompts aim to provide both categorical and non-categorical data.

It is imperative to mention that Scriven's formative and summative evaluations will be embedded throughout the CIPP development process as well as at the end of Phase I (EERA, 2017). A formative evaluation is intended to "provide information to improve a program while it is in operation" (Giancola, 2021). This notion is reflected in a question included within the CIPP Pre Survey that attempts to inform program development. The pre-survey formative question is as follows: Please describe the concepts you would find most helpful within a training program for delivery of prevocational services.

Summative evaluation will also be utilized within the CIPP. A summative evaluation is "aimed at providing information about the effectiveness in order to make decision including whether to continue, discontinue or in this case expand the program" (Giancola, 2021). The post-survey summative question aims to identify how the program can expand i.e. How would you improve the CIPP?

Evaluation Design

The initial phase of the CIPP will be evaluated by a quasi-experimental, nonrandomized, pre-post intervention design (Harris et al., 2006). The quasi-experimental design aims to demonstrate causality between an intervention and the outcomes of the program (Harris et al., 2006). This methodology can be utilized in both preintervention and postintervention

measurements. To evaluate the outcomes, a dependent t-test comparison of pre- to post-training scores will be applied and analyzed. The dependent quasi-experimental design will be paired with a comprehensive logic model. This will result in more rigorous and detailed evaluation which will ideally support findings and create change. This data will then be critically analyzed to determine effective vs. ineffective program components as well as areas of improvement.

When considering the dependent quasi-experimental design and its application to the CIPP, the population being assessed is professionals working to deliver prevocational services for individuals with brain injury (BI). The number of subjects in the group is expected to be between 50 to 100. The demographics are as follows: Participants must provide prevocational services for individuals with BI and live and work in the United States to participate. Participants must understand English, be at least 18 years old, and be able to consent. Phase I of the study is expected to last 7 months. However, based on the results gleaned from the initial launch of the CIPP, this writer aims to continuously evaluate, improve, and further analyze the impact of programming on professional competency as well as client return to work (RTW) outcomes.

Evaluation Enrichments

Evaluation enrichments are “added supports to evaluation design that can increase the usefulness of results and credibility of findings” (Giancola, 2021). At this stage in program development, the CIPP is being supported using a robust logic model (Figure 2). This model breaks down each program component i.e., strategies, early/intermediate objectives as well as long term goals. This content of the logic model is then supported through development of a corresponding evaluation matrix which also aims to enrich program content. This is achieved through tailored evaluation questions that aim to expand on program content. The logic model

serves as a tool to address these questions, clearly define program content, identify supports/barriers, and ultimately provide explanation for findings.

Additionally, the CIPP aims to target a very specific population, i.e. professionals working in prevocational activities for individuals with BI. That being said, it would be beneficial to conduct a case study of the effectiveness of CIPP content on the participant, the impact on service delivery and client outcomes. This would then serve as a testimonial to the program which would maximize its reach.

Pre-Post Training Results

- 1. Methods:** The CIPP was a mixed methods study that employed a combination of quantitative and qualitative prompts to extract data. This data was utilized to guide the development of the program and to demonstrate its effectiveness after training.
- 2. Outcomes Measures:** The data was measured through the implementation of a pre-post survey using Qualtrics software. Questions were formatted as a 5 point Likert type scale with optional short open-ended follow up. A thorough analysis was then performed to ascertain the percentage of participants' responses within each category.
- 3. Procedures and Data Collection Timeline:** A convenience sample of participants was recruited through leveraging existing social networks, personal contacts as well as closed online social media groups. To meet inclusion criteria, respondents were required to self-identify as a professional working in the prevocational field and have regular interactions with the BI population. Additionally, respondents must read English, work in the United States, be over 18 years old, and be able to provide consent.

The study will be completed in a year. Once IRB approval was attained in January 2023.

- *Weeks 1 – 5:* Once approved by IRB, Phase I of CIPP development will consist of gathering original data from professionals currently working in prevocational programming for individuals with BI. This will be accomplished using a Qualtrics electronic survey allowing quantitative and qualitative responses.
- *Weeks 5 - 10:* Phase II - Data analysis will include responses to initial digital surveys combined with a comprehensive literature review. This will inform the development of CIPP guidelines.
- *Weeks 10 – 15:* Phase II - Once developed, a pilot of the CIPP training program for professionals working with prevocational activities with the BI population will be offered.
- *Weeks 15 - 20:* Phase IV - A pretest-posttest design study will be implemented measuring changes in knowledge, perceived knowledge, perceived competence, and perceived confidence in delivering the CIPP interventions.

4. Results: Results of the study indicated significant shifts in understanding regarding prevocational service delivery and the OT's role in this field of practice. Following the implementation of the CIPP, 82% of professionals reported an enhanced capability to "describe what prevocational means to clients, family members, and outside agencies." In contrast, prior to the CIPP, only 52% of professionals strongly agreed with their confidence in effectively communicating about the studied service area. Further analysis revealed that prior to the CIPP, only 38% of practitioners felt "competent in delivering prevocational services to individuals with BI," while after CIPP training, this figure

increased to 73%, thus demonstrating substantial improvements in knowledge. Prior to CIPP, 14% of professionals strongly agreed on resource access to develop prevocational intervention plans for BI population. Post-CIPP, this increased to 55%, alongside improved individualized planning. Over 81% found CIPP guidelines beneficial, 90% praised its clear instruction for delivery, and 82% aimed to integrate within their place of employment and recommend it to colleagues.

Figure 5: Pre/Post Survey Results

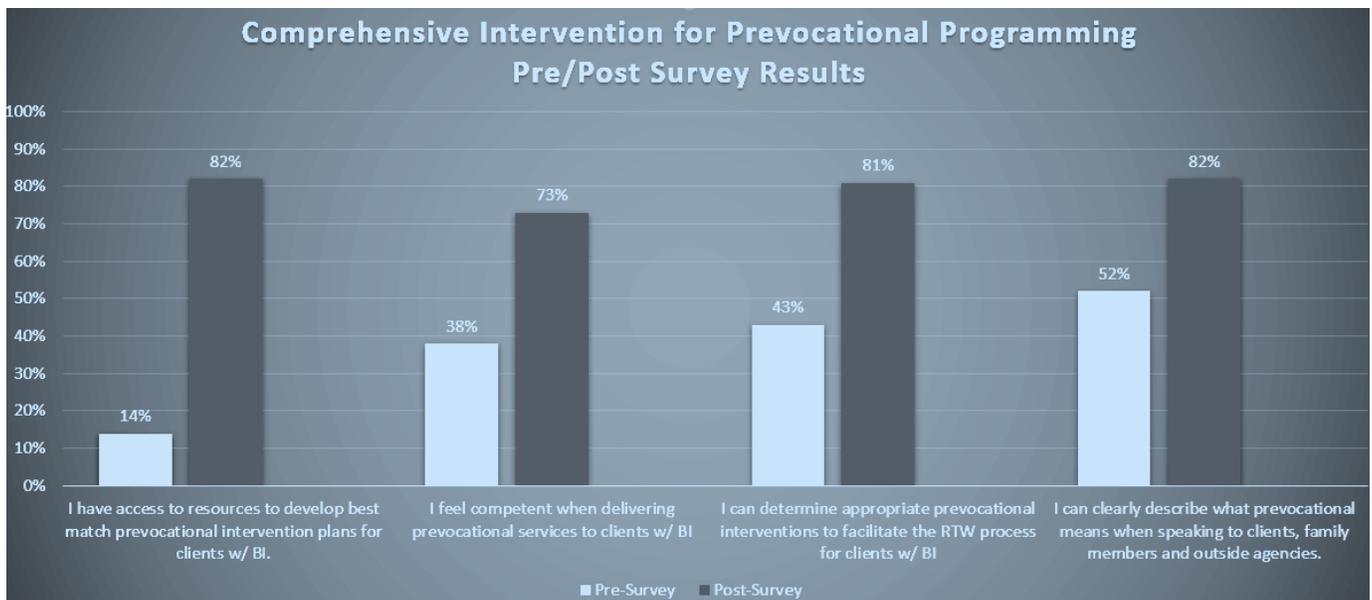
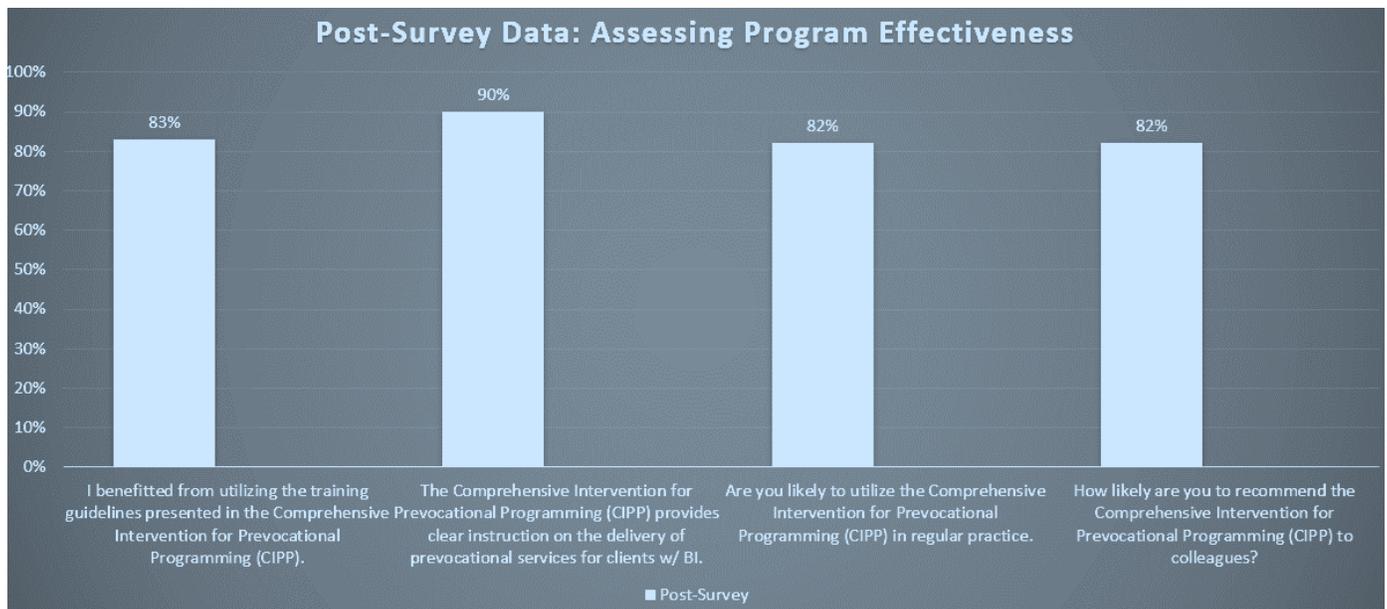


Figure 6: Post-Survey Data



5. Discussion: Evidence indicates that following the completion of the CIPP training, the majority of participants demonstrated increased comprehension of the intricacies surrounding the RTW process for clients with BI, as well as a heightened awareness of the distinct and vital responsibilities that OTP holds in the realm of prevocational service delivery. Furthermore, the research reinforces the use of the CIPP as a uniform training tool for professionals who are actively administering prevocational interventions. Although the study produced positive outcomes, it is imperative to note that there were limitations which included of control group to compare outcomes, imposed time constraints and a technology requirement which may have impacted results.

Implications for Practice and Future Research

Based on the extensive literature review required to inform the CIPP, it is evident that professionals working in prevocational activities for clients with BI did not have access to essential training resources required for efficient service delivery. Although this CIPP has bridged this gap, it is clear that further efforts are warranted to advocate for the role of the OT in the prevocational domain. Moreover, ongoing research is required to examine if the interventions executed by a CIPP trained professional have a positive influence on the RTW process for BI client.

Figure 7: Evaluation Matrix

AN EVALUATION MATRIX:
A COMPREHENSIVE INTERVENTION FOR PREVOCATIONAL PROGRAMMING:
AN OCCUPATIONAL THERAPY BASED APPROACH TO FACILITATE RETURN TO WORK POST BRAIN INJURY
 COMPLETED BY: MEGAN GITTINGS, OTR/L

	Logic Model Component	Evaluation Questions	Indicators	Targets	Data Source	Data Collection	Data Analysis
Strategies/ Implementation	A Comprehensive Assessment Plan	What are the content and format of the Comprehensive Assessment Plan? How will professionals access the assessment plan?	Content and format of Comprehensive Assessment Plan. Method of delivering assessment plan materials to professionals.	By program start, materials within the Comprehensive Assessment plan are developed and implemented with fidelity.	Fidelity of implementation rubric created for CIPP training. CIPP Pre-Survey	Rubric administered at the start of the program and w/ each program revision. Survey administered at the start of program.	Rubric data analyze for evidence of implementation fidelity. Descriptive Statistics of survey data.
	Resources and instruction for Development of Best-Matched Pre-Vocational Intervention Plan	What literature exists regarding delivery of pre voc services for individuals w/ BI? What are the resources available for development pre-voc intervention plans? What is the format of instruction for development of best matched pre-voc intervention plans?	Evidence presented within peer reviewed literature. Availability of resources. Format of instruction for development of best matched pre-voc intervention plans.	By program start, education regarding resources and instruction for development of best matches pre-voc intervention plans are developed and implemented with fidelity.	Fidelity of implementation rubric created for CIPP training. CIPP Pre-Survey	Rubric administered at the start of the program and w/ each program revision. Survey administered at start of program	Rubric data analyze for evidence of implementation fidelity. Descriptive Statistics of survey data.
	Training Guidelines for a CEU Program for All Professionals Working in Pre-Vocational Activities	How will professionals access the training guidelines? What is the content of the training guidelines?	Method of delivering training guidelines. Content of training. Number of professionals engaging in training.	By program start, content within CIPP training modules for professionals will be developed and implemented with fidelity.	Fidelity of implementation rubric created for CIPP training. CIPP Pre-Survey	Rubric administered at the start of the program and w/ each program revision. Survey administered at the start of program.	Rubric data analyze for evidence of implementation fidelity. Descriptive Statistics of survey data (<u>n</u> -of professionals who registered for CIPP with email).
	Training Guidelines for Establishing the OTP as the Pre-Vocational Coordinator	How will OTPs access the training guidelines? What is the content of the training guidelines?	Method of delivering training guidelines. Content of training. Number of OTPs engaging in training.	By program start, content within CIPP training modules for OTPs will be developed and implemented with	Fidelity of implementation rubric created for CIPP training.	Rubric administered at the start of the program and w/ each program revision.	Rubric data analyze for evidence of implementation fidelity. Descriptive Statistics of survey data (<u>n</u> -of

				fidelity.	CIPP Pre-Survey	Survey administered at the start of program.	professionals who registered for CIPP with email).
¹ Short-Term and ² Intermediate Objectives	¹ Professionals will demonstrate competency with utilizing pre-vocational assessments and ² demonstrate increased use of CIPP assessment plan in practice as measured by post training survey.	To what extent did professionals demonstrate competency with implementation of prevocational assessments? To what extent did professionals utilize the CIPP assessment plan in practice?	Number of professionals reporting competence with use of prevocational assessments. Number of professionals utilizing CIPP assessment plan in practice.	Within 1 week of the program start, professionals will have received education on use of prevocational assessments. Within 1 month, > 75% of CIPP participants will utilize the Comprehensive Assessment Plan in practice.	CIPP Post-Survey Program Documentation	Survey administered at the end of the program. Program documentation examined monthly	Descriptive Statistics of survey data. Inferential statistics (dependent t-test comparing score from pre to post survey) Program documentation examined for evidence of implementation.
	¹ Increased number of professionals will report expanded knowledge about existing pre-vocational resources and ² demonstrate the ability to access resources to aid in development of customized prevocational interventions plan as measured by post training survey.	To what extent were professionals aware of their access to pre-vocational resources? To what extent did the number professionals report increase access to pre-vocational resources?	Availability of prevocational resources. Number of professionals accessing prevocational resources.	Within 1 week of the program start, professionals will have access to prevocational assessments.	CIPP Post-Survey Program Documentation	Survey administered at the end of the program. Program documentation examined monthly.	Descriptive Statistics of survey data. Inferential statistics (dependent t-test comparing score from pre to post survey) Program documentation analyzed for evidence of availability of materials.
	¹ Professionals will actively participate in educational modules and ² be able to define prevocational services, understand the importance of rtw/bi as well as identify covered services as measured by post training survey.	To what extent did professionals participate in CIPP educational modules? To what extent did the number professionals report increase knowledge regarding prevocational service delivery?	Number of professionals who completed CIPP modules. Number of professionals who demonstrate the ability to articulate the definition of prevocational services to clients/families. Number of professionals who understand the scope of prevocational services.	Within 1 week of completing CIPP modules, professionals will have the ability to confidently educate clients/families on prevocational services. Within 1 week >75% of CIPP participants will report increased knowledge of prevocational services via a self-report.	Course Registration Rate CIPP Post-Survey	Collection of course registration emails. Survey administered at the end of the program.	Descriptive Statistics of registration data. Descriptive Statistics of survey data. Inferential statistics (dependent t-test comparing score from pre to post survey)
	¹ OTPs will actively participate in educational module and ² demonstrate the ability to define the role OT in prevocational service delivery and identify responsibilities as pre-voc	To what extent did OTPs participate in CIPP educational modules? To what extent did the number of OTPs report increase knowledge of the role of OT in prevocational service	Number of OTPs who completed CIPP modules. Number of OTPs who demonstrated increased knowledge of the role of OT in RTW.	Within 1 week >75% of CIPP participants who are OTPs will report increased knowledge of the role of OT in RTW via a self-report.	Course Completion Rate Focus Group	Pre/Post Survey Focus Group Transcript	Frequency of descriptive codes identified within transcript. Inferential statistics (dependent t-test)

	coordinator as measured by post training survey.	delivery. To what extent did the number of OTPs express interest in becoming prevocational coordinators?	Number of OTPs who can state the responsibilities of Prevocational Coordinator.	Within 3 months, OTPs who <u>completed</u> CIPP training will incorporate responsibilities of Prevocational Coordinator into practice.			comparing score from pre to post survey)
Long-Term Goals	Professionals will implement CIPP assessment as their primary evaluation tool at their place of employment, within 6 months of completing the program.	To what extent did professionals implement the CIPP assessment as the primary evaluation tool at their place of employment?	Number of professionals utilizing CIPP assessment plan as their primary evaluation tool.	Within 6 months, professionals will implement the CIPP assessment plan as the uniform evaluation tool for their organization.	Focus Group (Prompt: Self report on frequency of CIPP assessment used in evaluations)	Focus Group Transcript	Frequency of descriptive codes identified within transcript.
	Professionals will properly utilize all pre-voc resources to develop 1:1 interventions leading to increased employability skills for clients with bi.	To what extent did employability skills of clients w/ BI increase as a result of increased access to prevocational resources?	The number of clients whose employability skills increased as a result of access to prevocational resources.	Within 6 months, clients' employability skills will increase as a result of CIPP training. This will be measured by a quarterly assessment.	Focus Group (Prompt: Report on results of Vocational Readiness Intake Assessment - VRABI)	Focus Group Transcript	Frequency of descriptive codes identified within transcript.
	Within 6 months of completing the CIPP. Professionals will gain the skills necessary to deliver pre-voc services in order to increase successful rtw outcomes.	To what extent did professionals gain the skills necessary to deliver prevocational services as a result of participating in the CIPP? To what extent did RTW outcomes improve for clients w/ BI as a result of the CIPP?	Number of professionals who can effectively deliver prevocational services. Number of clients who successfully RTW w/ assistance from CIPP trained professional.	Within 1 year, > 75% of clients working with a CIPP trained professional will RTW.	Focus Group (Prompt: Report on # Clients who RTW)	Focus Group Transcript	Frequency of descriptive codes identified within transcript.
	CIPP will lead to increased awareness of the role of OT in the delivery of prevocational services.	To what extent did OTPs report increase awareness in their role in prevocational service delivery?	Number of OTPs who can articulate the role of OT in the RTW process for individuals w/ BI.	Within 1 year, the CIPP will be distributed and implemented in 50 organizations thus awareness of role of OT in the RTW process for individuals w/ BI	Program Documentation	Program documentation examined quarterly.	Documentation analyzed for number of CIPP registration requests/instances of downloaded content
	CIPP will result in an increased number of OTPs taking on the role of Pre-Vocational Coordinator.	To what extent did OTPs report <u>taking</u> on a leadership role as Pre-Vocational Coordinator?	Number of OTPs who have become the Pre-Vocational Coordinator in their organization.	Within 1 year, the number of CIPP trained OTPs will become the Pre-Vocational Coordinator as measured by a self-report.	Bureau of Labor Statistics (BLS) (See Vocational Rehabilitation Services)	BLS Occupational Therapy Employment Matrix	Data analyzed for percentage of OTPs with Occupational Title under Vocational Rehabilitation Services.

CHAPTER FIVE – Artifact Funding Plan

The purpose of this chapter is to provide a comprehensive summary of funding resources necessary to successful program implementation, replication, and expansion. As the research is conducted virtually, there are minimal to no costs associated with duplication (Tables 1 and 2).

Description of Solution

The Comprehensive Intervention for Prevocational Programming (CIPP) is an asynchronous, self-paced course that is designed to provide professionals with the knowledge and skills necessary to facilitate a successful return to work through the prevocational process. The program is composed of four modules that aim to expand on the delivery of prevocational services and further define the role of the occupational therapist in this area. The CIPP is predicted to increase practitioner's competence levels and improve client outcomes upon completion.

Table 1: Virtual Program Implementation Funding Needs (\$0 amounts reflect work completed in partial fulfillment of doctoral degree and without monetary compensation).

Name	Megan Gittings	
Project Title	Comprehensive Intervention for Prevocational Programming	
Materials/Supplies	Item	Amount
1	Power Point Handouts	0
2	Assessment Handouts	0
Equipment	Item	Amount
1	Computer with audio and visual sharing	\$400 (0 if preowned)
2	Wireless Fidelity (WIFI)	\$40 per/month (0 if utilizing public WIFI)
3	Nearpod Account	\$10 per/month (0 if utilizing basic account)
Salaries	Item	Amount
1	Megan Gittings/Current Investigator	0
Travel Expenses	Item	Amount
1	None Required	0
Other	Item	Amount
1	None Required	0
Total Budget		
Calculated without discounted amounts from above		\$450.00

Table 2: In-Person Study Implementation Funding Needs (20 Participants)

Name	Megan Gittings	
Project Title	Comprehensive Intervention for Prevocational Programming	
Materials/Supplies	Item	Amount
1	Power Point Handouts*	\$40.00
2	Assessment Handouts	\$5.00
*Note .10 per page x 20 = \$2.00, 20 copies x \$2.00 = \$40.00		
Equipment	Item	Amount
1	Computer with audio and visual sharing	\$400 (0 if preowned)
2	Screen Projector	\$350 (0 if provided by venue)
3	Wireless Fidelity (WIFI)	\$40 per/month (0 if utilizing public WIFI)
4	Nearpod Account	\$10 per/month (0 if utilizing basic account)
Salaries	Item	Amount
1	Megan Gittings/Current Investigator	0
Travel Expenses	Item	Amount
1	Local Travel Expense	Location Dependent
2	Flight Cost	Location Dependent
Other	Item	Amount
1	Conference Venue	\$100
Total Budget	Calculated without discounted amounts from above	
		\$945.00 + Travel Expense

Table 3: Potential Funding Resources

How To Apply for Funding

American Occupational Therapy Foundation

- AOTF Intervention Research Grant Program
- “The purpose of this grant program is to lay the necessary groundwork for larger intervention studies and for larger implementation studies and support the profession’s Vision 2025 of occupational therapy as an evidence-based profession. The intent of the IRG program is to provide seed funding for the development of new and/or novel ideas in order to generate preliminary data as proof of concept” (AOTF, 2023).
- Contact Information: research@aotf.org

Grants.Gov: The Administration for Community Living (ACL)

- Traumatic Brain Injury (TBI) State Partnership Program
- “The purpose of this program is to create and strengthen person centered, culturally competent systems of services and supports that maximize the independence and overall health and well-being of all people with TBI across the lifespan, their family members, and their support networks” (ACL, 2023)
- Contact Information: Shawn Callaway- shawn.callaway@acl.hhs.gov

Brain Injury Association of America

- Research Grants Program
- Contact Information: Grant Administrator at research@biausa.org

CHAPTER SIX - The Dissemination Plan

The dissemination plan will provide a strategic outline of the methods and channels that will be utilized to reach the target audience. It is anticipated that the distribution of research will further advance the field of occupational therapy (OT) and bring awareness to the role of the occupational therapy practitioner (OTP) in the delivery of prevocational services.

Target Audiences

- Occupational Therapy Practitioners
- Occupational Therapy Students
- Occupational Therapy Faculty
- Pre-Vocational Coordinators
- Vocational Rehabilitation Counselors
- Employment Specialists
- Cognitive Rehabilitation Therapists
- Other Allied Health Professionals working w/ Brain Injury (BI) Population
- Other Job Support Professionals working w/ Brain Injury (BI) Population

Mechanisms for Dissemination

Mechanisms for dissemination of the CIPP will be tailored to best fit the needs of the audience. This will allow for program distribution on multiple platforms thus

resulting in increased awareness, advancement, and provider knowledge. Dissemination strategies at this stage will include:

- **Courses:** Asynchronous, self-paced course via Nearpod to educate professionals on provision of prevocational services.
- **Conferences:** Conferences and presentations on a national and regional level to increase awareness of prevocational services delivery as well as the role of the occupational therapist in this area.
- **Social Media:** Content specific platforms to share CIPP to relevant populations and establishment of discussion threads to further review content.

Table 4: Costs Associated with Dissemination Planning

Dissemination Budget		
Method	Description	Amount
2024 POTA Conference	POTA Conference in Pittsburgh 305 miles at \$3.15 per/gallon	\$40.00
2024 POTA Conference	Poster Printing	\$200.00
2024 AOTA Conference	AOTA Conference in Orlando, Florida Airfare	\$300.00
2024 AOTA Conference	Poster Printing	\$200.00
Online Course	Nearpod Account	\$10.00
Social Media	Related Platforms for Exposure	0

CHAPTER 7: Conclusion

The contents of this chapter will discuss the significance of the Comprehensive Intervention for Pre-Vocational Programming (CIPP), explore its role as representative of innovation and its impact on the field of Occupational Therapy (OT).

Significance of the Study

The need for a comprehensive training module educating professionals on prevocational service delivery has been examined by researchers and found to be a critical element in improving professionals' confidence, competency and knowledge regarding the return to work (RTW) process for individuals with brain injury (BI). The study addressed the following research questions: (1) Is there evidence that inclusion of a training program for individuals working in the delivery of prevocational services results in an increase in knowledge in this sector? (2) Is there evidence that the role of the occupational therapist (OT) in the delivery of prevocational services has not been fully defined, thus contributing to decreased awareness and competency in occupational therapy practitioners (OTPs)?

Findings from the study suggest that participation in the CIPP yielded notable improvements in understanding of skills and self-assurance related to delivery of the prevocational services. Additionally, participants reported significant advancements in their ability to educate clients on the RTW process, administer prevocational services and articulate the role of the OTP in this domain. Results of the study indicated that after

completing the modules, participants effectively employed the provided tools to facilitate the formulation of individualized intervention plans essential for progressive development of client's employability skills necessary for successful engagement in prevocational pursuits.

Significant changes occurred in the participants ability to "clearly describe what prevocational means when speaking to clients, family members and outside agencies" as evidenced by results from pre to post survey. Additionally, participants reported a change in levels of perceived competence as evidenced by a score increase in the following prompt, "I feel competent when delivering prevocational services to clients with brain injury."

Results compared from pre to post survey indicated that participants gained knowledge of "different prevocational evaluations available to assess clients with BI" as well as increased access to resources necessary to "develop best matched prevocational intervention plans." Moreover, participants reported increased capacity to "determine appropriate prevocational interventions" and positive changes were noted in comfortability level "connecting with outside employers to advocate for the BI client's successful RTW."

A substantial number of participants reported benefitting from the "training guidelines presented in the CIPP." In fact, 80% of participants reported immediate utilization of the CIPP in their place of employment.

The study results demonstrate the value of the CIPP as a vital tool for professionals to employ throughout the entire prevocational process. In fact, when asked “how likely you are to recommend the CIPP to colleagues”, 80% of the participants responded positively, indicating a strong endorsement of the CIPP. This statistic validates the CIPP effectiveness and generalizable content across a diverse set of disciplines.

Limitations

The CIPP took the form of mixed methods study design that relied on both quantitative and qualitative data. Due to the inherent design nature, the study lacked a control group for comparison, specifically in assessing the effectiveness of the CIPP. Additionally, the study was conducted within a seven-month time span thus establishing notable time constraints for program implementation and participant recruitment. This study was conducted in an entirely virtual format which resulted in limited control over the research environment. Furthermore, the virtual nature of the study resulted in the exclusion of individuals who do not have access to technology thus impacting the findings.

Implications for the Occupational Therapy Practice

Based on the positive results from implementing the CIPP, it is evident that professionals working in prevocational activities for clients with BI faced a limitation as

they did not have prior access to the essential resources required for effective service delivery. Although this gap has been bridged with the implementation of the CIPP, it is clear that additional advocacy for the role of the OT in the prevocational sector is required. This notion is substantiated by a participant response to the prompt “How would you improve the CIPP?” “I would make it [CIPP] more known to OTs! Prevocational Training should be a larger part of OT.” Moreover, continued research is required to determine if the interventions implemented by a CIPP trained professional have a positive impact on the RTW process for BI client.

In the attempt to maximize the reach of the CIPP, its content is free and easily accessible to the public. However, the cost to develop and utilize the program was entirely dependent on access to technological resources. The primary delivery platform is virtual and therefore the expenses are associated with equipment such as desktop, WIFI, and a subscription to a Nearpod account which culminates to a total of \$450.00. Virtually, the dissemination costs for CIPP promotion are minimal with the exception of a \$10.00 Nearpod subscription. The mechanisms for in person dissemination of the CIPP are significantly more costly due to the amount required to travel to AOTA and POTA conferences scheduled for 2024. In summary, the CIPP is a cost-effective intervention which allows opportunities for increased awareness, promotion and accessibility.

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APPENDIX

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Appendix A: Pre-Survey Questionnaire

Pre Survey Questions

1. I can clearly describe what pre-vocational means when speaking to clients, family members and outside agencies.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
2. I feel competent when delivering pre-vocational services to clients with brain injury.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
3. I feel knowledgeable about 4 or more different pre-vocational evaluations available to assess clients with brain injury.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
- Please describe: _____
4. I have access to resources to develop best match pre-vocational intervention plans for clients with brain injury.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
5. I can determine appropriate pre- vocational interventions to facilitate the return to work process for clients with brain injury.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
6. I feel knowledgeable about the return to work process for clients with brain injury.
 - a. Strongly agree

- b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
7. I feel comfortable connecting with employers and outside agencies to advocate for the brain injured client's successful return to work.
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
8. I can easily access educational resources to further my understanding of prevocational services in my area of work.
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
9. I can access more than enough educational resources further my understanding pre-vocational services in my area of work.
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
10. I would benefit from training guidelines for professionals working in pre-vocational activities
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree

Please describe the concepts you would find most helpful within a training program for delivery of prevocational services.

For what length of time are you likely to engage in a training program for delivery of prevocational services?

If you are interested in participating in a complimentary training program on prevocational service delivery, please enter your email address below.

Appendix B: Post-Survey Questionnaire

Post Survey Questions

1. I can clearly describe what pre-vocational means when speaking to clients, family members and outside agencies.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
2. I feel competent when delivering pre-vocational services to clients with brain injury.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
3. I feel knowledgeable about 4 or more different pre-vocational evaluations available to assess clients with brain injury.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
4. I have access to resources to develop best match pre-vocational intervention plans for clients with brain injury.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
5. I can determine appropriate pre- vocational interventions to facilitate the return to work process.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
6. I feel knowledgeable about the return to work process for clients with brain injury.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
7. I feel comfortable connecting with employers and outside agencies to advocate for the brain injured client's successful return to work.
 - a. Strongly agree

- b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
8. I benefitted from utilizing the training guidelines presented in the Comprehensive Intervention for Prevocational Programming (CIPP).
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
9. The Comprehensive Intervention for Prevocational Programming (CIPP) provides clear instruction on the delivery of prevocational services for clients with BI.
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
10. Are you likely to utilize the Comprehensive Intervention for Prevocational Programming (CIPP) in regular practice.
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree
11. How likely are you to recommend the Comprehensive Intervention for Prevocational Programming (CIPP) to colleagues?
- a. Strongly agree
 - b. Somewhat agree
 - c. Neither agree nor disagree
 - d. Somewhat disagree
 - e. Strongly disagree

How did you apply the Comprehensive Intervention for Prevocational Programming (CIPP) to your area of practice?

How would you improve the Comprehensive Intervention for Prevocational Programming (CIPP)?

Appendix C: IRB Proposal



Research Integrity & Compliance
Student Faculty Center
3340 N. Broad Street, Suite 304
Philadelphia PA 19140

Institutional Review Board
Phone: (215) 707-3390
Fax: (215) 204-4609
e-mail: irb@temple.edu



Approval for a Project Involving Human Subjects Research that is Approved as Exempt

Date: 19-Jan-2023

Protocol Number: 30224
PI: CYNTHIA ABBOTT-GAFFNEY
Review Type: EXEMPT
Approved On: 19-Jan-2023
Risk: Minimal risk
Committee: A1
Sponsor: NO EXTERNAL SPONSOR
Project Title: A Comprehensive Intervention for Prevocational Programming: An Occupational Therapy Based Approach to Facilitate Return to Work Post Brain Injury

The IRB approved the protocol 30224.

The study was approved under Exempt review. The IRB determined that the research **does not require a continuing review**, consequently there is not an IRB approval period.

As this research was approved as Exempt, the IRB will not stamp the consent or assent form(s).

Note that all applicable Institutional approvals must also be secured before study implementation. These approvals include, but are not limited to, Medical Radiation Committee ("MRC"); Radiation Safety Committee ("RSC"); Institutional Biosafety Committee ("IBC"); and Temple University Survey Coordinating Committee ("TUSCC"). Please visit these Committees' websites for further information.

Finally, in conducting this research, you are obligated to submit the following:

- **Amendments - Any changes to the research that may change the Exempt status of this study must be reviewed and approved by the IRB prior to implementation.** Examples of such changes are: including new, sensitive questions to a survey or interview, changing data collection such that de-identified data will now be identifiable, including an intervention in the methods, changing variables to be collected from medical charts, decreasing confidentiality measures, including minors or adults lacking capacity to consent as subjects when previously only adults with capacity to consent were to be enrolled, no longer collecting signed HIPAA Authorization, etc. Please reach out to the IRB Staff with any questions about if a change to the study warrants an Amendment.
- **Reportable New Information -** Using the Reportable New Information e-form, report new information items such as those described in HRP-071 Policy - Prompt Reporting Requirements to the IRB **within 5 days**.
- **Closure report -** Using a closure e-form, submit when the study is permanently closed to enrollment; all subjects have completed all protocol related interventions and interactions; collection of private identifiable information is complete; and analysis of private identifiable information is complete.

For the complete list of investigator responsibilities, please see the HRP-070 Policy – Investigator Obligations, the Investigator Manual (HRP-910), and other Policies and Procedures found on the Temple University IRB website: <https://research.temple.edu/irb-forms-standard-operating-procedures>.

Please contact the IRB at (215) 707-3390 if you have any questions.

EXECUTIVE SUMMARY

According to the Brain Injury Association of America (BIAA, 2022), Traumatic Brain Injury (TBI) impacts an estimated 5.3 million Americans. As stated by the American Society for Biochemistry and Molecular Biology (ASBMB, 2021), approximately 1 out of every 60 individuals experience a disability related to brain injury (BI). Among individuals who are living with a BI, only 40.8% returned to employment after 2 years and 20% of individuals were unable to return to work (Sharma, 2022). Essentially, individuals with BI are at a decreased likelihood to return to work (RTW) due to physical and cognitive deficits. Unemployment, specifically for individuals with BI, results in reduced opportunities for community engagement, loss of identity and decreased overall quality of life (QoL).

The Comprehensive Intervention for Prevocational Programming (CIPP) is an occupational therapy (OT) based approach to assist in the RTW process post BI. The objective of the CIPP is to educate professionals on the prevocational process leading to successful RTW. The CIPP encompassed four modules that served the following purposes: introducing prevocational services, examining the influence of BI on RTW, outlining the services covered, and defining the Occupational Therapy Practitioner's (OTP) role within the prevocational sector.

Twenty one professionals who took part in a 2023 study were asked to complete a Pre-Survey measuring knowledge and competency in the delivery of prevocational services. Upon completion of the survey, respondents were invited to participate in the

CIPP online training module followed by a post survey measuring shifts in understandings and strategies. Of the initial respondents, 52% ($n=11$) followed through with the continuum of the study and provided valuable data.

Results of the study indicated significant changes in the knowledge of prevocational service delivery as well as the role of the OT in this domain of practice. Post-CIPP, 82% of professionals reported increased ability to “describe what prevocational means when speaking to clients, family members and outside agencies.” Prior to the CIPP, a mere 52% of professionals expressed strong agreement in their ability to confidently articulate the service area being studied. Additional findings revealed that Pre-CIPP, only 38% of practitioners felt “competent when delivering prevocational services to individuals with BI” whereas Post-CIPP, this number increased to 73% thus proving considerable changes in knowledge.

Pre-CIPP, professionals were asked to rate their ability to “access resources to develop best match prevocational intervention plans for clients with brain injury.” Only 14% strongly agreed to having access to resources while 43% could determine appropriate prevocational interventions despite limited evidence-based practice (EBP). Post-CIPP, 55% of professionals experienced enhanced access to resources and a notable improvement in their capacity to create individualized intervention plans.

Additional results revealed that over 81% of professionals agreed that they would benefit from “utilizing the training guidelines presented in the CIPP” and over 90% of professionals reported that CIPP provided clear instructions for delivery thus reinforcing

program effectiveness. 82% of professionals agreed that they would incorporate the CIPP in regular practice and recommend it to colleagues for organizational use.

In the open-ended questions regarding the application of the CIPP in practice, OTPs provided the following responses:

- *“I use a holistic prevocational approach to assist the clients in fundamental skills needed for the return to work process as well as actively listening to their interests and what they find meaningful.”*
- *“[I] Utilized resources available to provide better interventions for client success.”*
- *“I applied CIPP to my area of practice by participating in two prevocational therapeutic activities with two clients and my Fieldwork Educator (FWE)(i.e. task demands of selling donuts and running a coffee group).”*
- *“It [CIPP] increases my awareness to apply prevocational tasks while patients are still in inpatient rehab and to provide education on activities post d/c such as volunteering.”*

These responses emphasize how OTPs have applied the CIPP framework in their practice, incorporating holistic approaches, utilizing resources, engaging in therapeutic activities, and focusing on inpatient rehabilitation and post-discharge education.

Ultimately, after completing the CIPP training, the majority of professionals reported an

increase in their knowledge regarding the RTW process for clients with BI and the unique role of the OTP in prevocational service delivery.

FACT SHEET



A Fact Sheet:
A Comprehensive Intervention for Prevocational
Programming
Megan Gittings, OTR/L, MOT
OTD Candidate

The Background

Traumatic Brain Injury (TBI) impacts an estimated 5.3 million Americans (BIAA, 2022). Among individuals who are living with a TBI, only 40.8% returned to employment after 2 years and 20% of individuals were unable to return to work (Sharma, 2022).

Individuals with brain injuries (BI) are at a decreased likelihood to return to work (RTW) due to physical and cognitive impairments. Unemployment, specifically for individuals with TBI, results in reduced opportunities for community engagement, loss of identity and decreased overall quality of life (QoL).

The Problem

There are limited resources and evidenced based practice (EBP) for therapists to refer to when developing employability skills for individuals with BI.

The Solution

The Comprehensive Intervention for Pre-Vocational Programming (CIPP) aims to educate professionals on the pre-vocational process leading to successful RTW. Inclusion of the CIPP will increase competency through the establishment of guidelines for specialists to refer to throughout the duration of the RTW experience. Moreover, the CIPP will further define the role of the OTP in pre-vocational service delivery.

A Comprehensive Intervention for Prevocational Programming



A COMPREHENSIVE INTERVENTION FOR PREVOCATIONAL PROGRAMMING:
AN OCCUPATIONAL THERAPY BASED APPROACH TO FACILITATE RETURN TO
WORK POST BRAIN INJURY

Megan Gittings, OTR/L, MOT



PROGRAM OVERVIEW:
FROM BASICS TO PRACTICE

At the conclusion of this program, you will be able to:

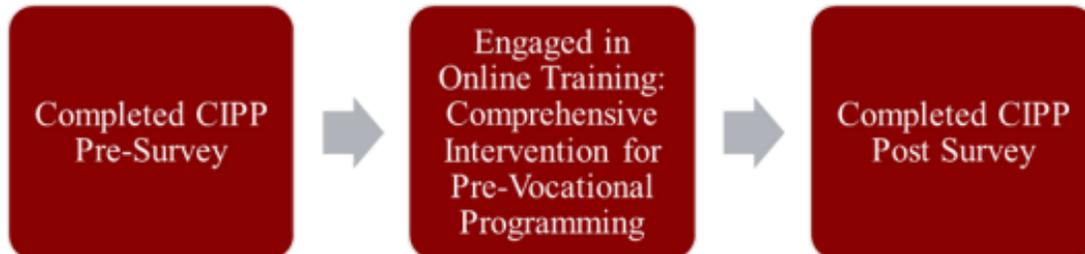
- Define the term "Pre-Vocational"
- Describe the impact of Pre-Vocational services on job readiness
- Educate clients, families and co-workers on Pre-Vocational services
- Discuss the impact of TBI on preventing successful employment
- Describe how the delivery of Pre-Vocational services aid in the return-to-work process for individuals with brain injury
- Demonstrate knowledge of covered services within the Pre-Vocational scope
- Demonstrate the ability to apply these skills within the workplace
- Define the role of the Occupational Therapist in the delivery of Pre-Vocational Services
- Identify essential resources for evaluation and best practice interventions
- Identify the responsibilities of Occupational Therapist as the Pre-Vocational coordinator

CIPP is an asynchronous, self-paced course composed of four modules:

- Module I: Introduction to Pre-Vocational Services
- Module II: Module II: An overview: Pre-Vocational Services & Brain Injury
- Module III: Covered Services
- Module IV: Occupational Therapy and Pre-Vocational Services

Data Collection and Analysis

Twenty one professionals who took part in a 2023 study were asked to complete a Pre-Survey measuring knowledge and competency in the delivery of prevocational services. Upon completion of the survey, respondents were invited to participate in the CIPP online training module followed by a post survey measuring shifts in understandings and strategies. Their responses provided valuable data.



The Impact

After completing the CIPP training, professionals reported an increase in their knowledge regarding the RTW process for clients with BI and the unique role of the OTP in prevocational service delivery.

- **81%** of professionals reported they would benefit from “utilizing the training guidelines presented in the CIPP”
- **82%** of professionals reported increased ability to “describe what pre-vocational means when speaking to clients, family members and outside agencies.”
- **73%** of professionals reported increased “competence when delivering pre-vocational services to individuals with BI.”
- **90%** of professionals reported that CIPP provided clear instructions for delivery
- **82%** of professionals agreed that they would incorporate the CIPP in regular practice and recommend it to colleagues for organizational use.

References

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- Sharma, T. (2022). Returning to work after mild traumatic brain injury and considering the impact of employer support. Retrieved from [Returning to Work After Mild Traumatic Brain Injury-Considering the Impact of Employer Support - PubMed \(nih.gov\)](#).

Megan E. Gittings, OTR/L

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Education

CURRICULUM VITAE

CLINICAL DOCTORATE IN OCCUPATIONAL THERAPY | AUGUST 2023 | TEMPLE UNIVERSITY
MASTER'S IN OCCUPATIONAL THERAPY | AUGUST 2019 | TEMPLE UNIVERSITY
BACHELOR OF SCIENCE | JUNE 2017 | ALVERNIA UNIVERSITY

- Major: Healthcare Science
- Minors: Psychology, English

Work Experience

UNIVERSAL INSTITUTE OF REHABILITATION | FEBRUARY 2020-PRESENT

- Occupational Therapist & Prevocational Specialist – Bethlehem, Pa
 - Currently providing comprehensive occupational therapy services for adults who are living with brain injury, spinal cord injury, or other neurological conditions in a rehabilitation setting. A specialization in prevocational services affords clients the opportunity to identify their interests, abilities, and strengths required to further develop skills that contribute to employ-ability and volunteer opportunities in a supportive community setting.

Clinical Experience

UPMC COMMUNITY OSTEOPATHIC CAMPUS | MAY 2019-AUGUST 2019

- Level II B Fieldwork – Harrisburg, Pa
 - Provided comprehensive occupational therapy services in an acute care setting, evaluated clients and established individualized interventions. Provided education regarding patient diagnoses as well as activity modification to facilitate progression toward performance based goals. Managed a high volume caseload and collaborated with other therapists to discuss treatment.

COORDINATED HEALTH | JANUARY 2019-APRIL 2019

- Level II A Fieldwork – Bethlehem, Pa
 - Provided comprehensive occupational therapy services in an upper extremity setting, evaluated clients and established individualized interventions. Provided patient education regarding diagnosis, adaptive equipment, and therapeutic interventions. Managed a high volume caseload and collaborated with other therapists to discuss treatment.

ST. LUKES UNIVERSITY HEALTH NETWORK | OCTOBER 2018-NOVEMBER 2018

- Level I Fieldwork – Bethlehem, Pa
 - Observed a CHT complete evaluations and interventions. Assisted in creating occupational profiles, collaborated with physical therapists to discuss treatment planning. Created and implemented interventions plans.

FAMILY AND COMMUNITY TRAUMA INFORMED CARE | SEPTEMBER 2017-MAY 2018

- Level I Fieldwork – King of Prussia, Pa
 - Evaluated internationally adopted children, developed and executed intervention plans, designed large group education grounded in Trust Based Relational Intervention (TBRI) principles for children and families.

Awards

AMY D. GOLDRING AWARD | TEMPLE UNIVERSITY | 2019

- This award recognizes the student for her display of professional and personal qualities of perseverance, selflessness, creativity, vitality, and humor.

HEALTHCARE SCIENCE ACADEMIC EXCELLENCE AWARD | ALVERNIA UNIVERSITY | 2017

- This award recognizes the student with the highest GPA in the cohort.

Volunteer Experience

UNIVERSAL INSTITUTE OF REHABILITATION | APRIL 2023 – JULY 2023

- Volunteer Coordinator
 - Developed and implemented weekend programming for individuals with brain injury to improve client participation in leisure pursuits, community engagement, and overall quality of life (QoL).

HOPE COMMUNITY CHURCH: TBRI COURSE | MARCH 2019

- Volunteer
 - Provided support for families of recently adopted children through a Trust Based Relational Intervention (TBRI) program.

CAROUSEL CONNECTIONS | MAY 2018 - JULY 2018

- Mentor
 - Provided guidance and support to young adults with intellectual disabilities through a summer home program. As a mentor, we model independence, promote skill development and facilitate relationship building to help participants develop social roles within the community.

Research

A COMPREHENSIVE INTERVENTION FOR PREVOCATIONAL PROGRAMMING: AN OCCUPATIONAL THERAPY BASED APPROACH TO FACILITATE RETURN TO WORK POST BRAIN INJURY | AUGUST 2022-PRESENT

- The objective of the study was to explore the development and implementation of the Comprehensive Intervention for Prevocational Programming (CIPP). The CIPP aimed to educate OTPs on the prevocational process leading to return to work (RTW). Results indicated that the CIPP not only increased practitioner competency, but ultimately improved client outcomes. Furthermore, the CIPP defined the role of the OTP in the RTW process.

NEUROFIBROMATOSIS: IMPACT ON FAMILY QUALITY OF LIFE | AUGUST 2018-PRESENT

- Explored the effect of Neurofibromatosis (NF) on family quality of life through qualitative research including interviews, transcribing and coding. Our research was selected to present at the Pennsylvania Occupational Therapy Association (POTA) conference in fall 2019.

Continuing Education

POST PROFESSIONAL CLINICAL DOCTORATE OF OCCUPATIONAL THERAPY PROGRAM (PP-OTD) | AUGUST 2022-AUGUST 2023

- Temple University